WORLD TRADE ORGANIZATION

WT/DS245/AB/R
26 November 2003

(03-6276)

Original: English

JAPAN – MEASURES AFFECTING THE IMPORTATION OF APPLES

AB-2003-4

Report of the Appellate Body

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TABLE OF CASES CITED IN THIS REPORT

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Australia – Salmon	Appellate Body Report, *Australia – Measures Affecting Importation of Salmon*, WT/DS18/AB/R, adopted 6 November 1998, DSR 1998:VIII, 3327
Brazil – Desiccated Coconut	Appellate Body Report, *Brazil – Measures Affecting Desiccated Coconut*, WT/DS22/AB/R, adopted 20 March 1997, DSR 1997:I, 167
Chile – Price Band System	Appellate Body Report, *Chile – Price Band System and Safeguard Measures Relating to Certain Agricultural Products*, WT/DS207/AB/R, adopted 23 October 2002
EC – Asbestos	Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R, adopted 5 April 2001
EC – Bananas III	Appellate Body Report, *European Communities – Regime for the Importation, Sale and Distribution of Bananas*, WT/DS27/AB/R, adopted 25 September 1997, DSR 1997:II, 591
EC – Bed Linen (Article 21.5 – India)	Appellate Body Report, *European Communities – Anti-Dumping Duties on Imports of Cotton-Type Bed Linen from India, Recourse to Article 21.5 of the DSU by India*, WT/DS141/AB/RW, adopted 24 April 2003
EC – Hormones	Appellate Body Report, *EC Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26/AB/R, WT/DS48/AB/R, adopted 13 February 1998, DSR 1998:I, 135
EC – Sardines	Appellate Body Report, *European Communities – Trade Description of Sardines*, WT/DS231/AB/R, adopted 23 October 2002
EC – Tube or Pipe Fittings	Appellate Body Report, *European Communities – Anti-Dumping Duties on Malleable Cast Iron Tube or Pipe Fittings from Brazil*, WT/DS219/AB/R, adopted 18 August 2003
India – Quantitative Restrictions	Appellate Body Report, *India – Quantitative Restrictions on Imports of Agricultural, Textile and Industrial Products*, WT/DS90/AB/R, adopted 22 September 1999, DSR 1999:IV, 1763
Japan – Agricultural Products II	Appellate Body Report, *Japan – Measures Affecting Agricultural Products*, WT/DS76/AB/R, adopted 19 March 1999, DSR 1999:I, 277
Japan – Apples	Panel Report, *Japan – Measures Affecting the Importation of Apples*, WT/DS245/R, 15 July 2003
Korea – Alcoholic Beverages	Appellate Body Report, *Korea – Taxes on Alcoholic Beverages*, WT/DS75/AB/R, WT/DS84/AB/R, adopted 17 February 1999, DSR 1999:I, 3
Korea – Dairy	Appellate Body Report, *Korea – Definitive Safeguard Measure on Imports of Certain Dairy Products*, WT/DS98/AB/R, adopted 12 January 2000, DSR 2000:I, 3
US – Carbon Steel	Appellate Body Report, *United States – Countervailing Duties on Certain Corrosion-Resistant Carbon Steel Flat Products from Germany*, WT/DS213/AB/R and Corr.1, adopted 19 December 2002

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US – Countervailing Measures on Certain EC Products	Appellate Body Report, *United States – Countervailing Measures Concerning Certain Products from the European Communities*, WT/DS212/AB/R, adopted 8 January 2003
US – Offset Act (Byrd Amendment)	Appellate Body Report, *United States – Continued Dumping and Subsidy Offset Act of 2000*, WT/DS217/AB/R, WT/DS234/AB/R, adopted 27 January 2003
US – Shrimp	Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, adopted 6 November 1998, DSR 1998:VII, 2755
US – Steel Safeguards	Appellate Body Report, *United States – Definitive Safeguard Measures on Imports of Certain Steel Products*, WT/DS248/AB/R, WT/DS249/AB/R, WT/DS251/AB/R, WT/DS252/AB/R, WT/DS253/AB/R, WT/DS254/AB/R, WT/DS258/AB/R, WT/DS259/AB/R, 10 November 2003
US – Wheat Gluten	Appellate Body Report, *United States – Definitive Safeguard Measures on Imports of Wheat Gluten from the European Communities*, WT/DS166/AB/R, adopted 19 January 2001
US – Wool Shirts and Blouses	Appellate Body Report, *United States – Measure Affecting Imports of Woven Wool Shirts and Blouses from India*, WT/DS33/AB/R and Corr.1, adopted 23 May 1997, DSR 1997:I, 323

WORLD TRADE ORGANIZATION
APPELLATE BODY

Japan – Measures Affecting the Importation of Apples	AB-2003-4
Japan, *Appellant/Appellee* United States, *Appellant/Appellee*	Present:
Australia, *Third Participant* Brazil, *Third Participant* European Communities, *Third Participant* New Zealand, *Third Participant* Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu, *Third Participant*	Lockhart, Presiding Member Baptista, Member Sacerdoti, Member

I. Introduction

1. Japan and the United States appeal certain issues of law and legal interpretations in the Panel Report, *Japan – Measures Affecting the Importation of Apples* (the "Panel Report").[1] The Panel was established to consider a complaint by the United States concerning certain requirements and prohibitions imposed by Japan with respect to the importation of apple fruit from the United States.

2. Following consultations that failed to resolve the dispute, the United States requested on 7 May 2002 that a panel be established to examine the matter on the basis of "measures" maintained by Japan that "restrict[] the importation of US apples in connection with fire blight or the fire blight disease-causing organism, *Erwinia amylovora*."[2] On 3 June 2002, the Dispute Settlement Body (the "DSB") established the Panel with the following terms of reference, in accordance with Article 7.1 of the *Understanding on Rules and Procedures Governing the Settlement of Disputes* (the "DSU"):

> … To examine, in the light of the relevant provisions of the covered agreements cited by the United States in document WT/DS245/2, the matter referred to the DSB by the United States in that document and to make such findings as will assist the DSB in making the recommendations or in giving the rulings provided for in those agreements.[3]

[1] WT/DS245/R, 15 July 2003.

[2] Request for the Establishment of a Panel by the United States, WT/DS245/2, 8 May 2002.

[3] Constitution of the Panel Established at the Request of the United States, WT/DS245/3, 17 July 2002, para. 2.

Australia, Brazil, the European Communities, New Zealand, and the Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu reserved their right to participate before the Panel as third parties.

3. Before the Panel, the United States claimed that Japan was acting inconsistently with Articles 2.2, 5.1, 5.2, 5.6, 5.7, and 7 of the *Agreement on the Application of Sanitary and Phytosanitary Measures* (the "*SPS Agreement*") and Annex B thereto; Article 4.2 of the *Agreement on Agriculture*; and Article XI of the *General Agreement on Tariffs and Trade 1994* (the "GATT 1994").[4] In the Panel Report, circulated to Members of the World Trade Organization (the "WTO") on 15 July 2003, the Panel found that Japan's phytosanitary measure:

(i) is maintained "without sufficient scientific evidence", inconsistent with Japan's obligation under Article 2.2 of the *SPS Agreement*;

(ii) does not qualify as a provisional measure under Article 5.7 of the *SPS Agreement* because it was not imposed in respect of a situation "where relevant scientific evidence [was] insufficient"; and

(iii) is not based on a "risk assessment" within the meaning of Article 5.1 of the *SPS Agreement*.[5]

4. As to the claims of inconsistency with Article 7 of the *SPS Agreement* and Annex B thereto, the Panel found that the United States had failed to establish a *prima facie* case under those provisions. Furthermore, having found the measure to be inconsistent with Japan's obligations under Articles 2.2, 5.7, and 5.1 of the *SPS Agreement*, the Panel determined that resolution of several of the remaining claims under other provisions was unnecessary, as such findings would not assist the DSB in making its recommendations and rulings so as to allow for prompt compliance by Japan. Therefore, in an exercise of judicial economy, the Panel declined to rule on the United States' claims under Articles 5.2 and 5.6 of the *SPS Agreement*, Article 4.2 of the *Agreement on Agriculture*, and Article XI of the GATT 1994.[6] In the light of its findings, the Panel recommended that "the Dispute

[4]The United States had also raised claims under Articles 2.3, 5.3, 5.5, and 6.1-6.2 of the *SPS Agreement* in its request for the establishment of a panel. The Panel observed, however, that the United States did not pursue these claims in any of its submissions. Accordingly, the Panel concluded that the United States had not made a *prima facie* case for any of these claims and therefore declined to make corresponding findings. (Panel Report, para. 8.334)

[5]*Ibid.*, para. 9.1(a)-(c).

[6]*Ibid.*, paras. 8.292, 8.303, 8.328, and 8.332.

Settlement Body request Japan to bring the phytosanitary measure in dispute into conformity with its obligations under the *SPS Agreement*."[7]

5. On 28 August 2003, Japan notified the DSB of its intention to appeal certain issues of law developed in the Panel Report and certain legal interpretations developed by the Panel, pursuant to Article 16 of the DSU, and filed a Notice of Appeal pursuant to Rule 20 of the *Working Procedures for Appellate Review* (the "*Working Procedures*").[8] On 8 September 2003, Japan filed an appellant's submission.[9] The United States filed an appellee's submission on 22 September 2003.[10] In addition to Japan's appeal, the United States cross-appealed the Panel Report by filing an other appellant's submission on 12 September 2003.[11] With respect to this cross-appeal, Japan filed an appellee's submission on 22 September 2003.[12] On that same day, Australia, Brazil, the European Communities, and New Zealand filed third participants' submissions[13], and the Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu notified its intention to attend and make statements at the oral hearing.[14]

6. The oral hearing in this appeal was held on 13 October 2003. The participants and third participants presented oral statements (with the exception of the Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu) and responded to questions put to them by the Members of the Division hearing the appeal.

7. Our analysis in this Report proceeds as follows:

- we begin with a brief factual background and an examination of the scope of the dispute, including the nature and history of the plant disease at issue, the products addressed by the Panel in its analysis, and the measure challenged by the United States[15];

- we then set out the arguments of the participants and third participants on appeal;

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[7]Panel Report, para. 9.3.

[8]Notification of an Appeal by Japan, WT/DS245/5, 28 August 2003, attached as Annex 1 to this Report. Japan's Notice of Appeal challenges only certain findings made by the Panel in the course of its analysis under the *SPS Agreement*; there are no issues on appeal related to the *Agreement on Agriculture* or to the GATT 1994.

[9]Pursuant to Rule 21(1) of the *Working Procedures*.

[10]Pursuant to Rule 22(1) of the *Working Procedures*.

[11]Pursuant to Rule 23(1) of the *Working Procedures*.

[12]Pursuant to Rule 23(3) of the *Working Procedures*.

[13]Pursuant to Rule 24(1) of the *Working Procedures*.

[14]Pursuant to Rule 24(2) of the *Working Procedures*.

[15]Additional factual aspects of this dispute are set out in greater detail in paragraphs 2.1-2.32 of the Panel Report.

- we next identify the issues raised before us on appeal and, in order to do so, consider the United States' claim that one of the issues argued by Japan in its appellant's submission is not properly before us because it was not identified in Japan's Notice of Appeal;

- we begin our assessment of the case by examining the United States' claim on appeal that the Panel did not have the authority to issue findings with respect to apples other than "mature, symptomless" apples. Because this claim raises the question of whether the Panel was even permitted to pronounce on the subject of apples other than "mature, symptomless" apples", we address this claim as a logical antecedent to Japan's claims on the merits of the Panel's findings;

- next, we consider Japan's claims challenging the Panel's findings that Japan's phytosanitary measure at issue is inconsistent with Japan's obligations under Articles 2.2, 5.7, and 5.1 of the *SPS Agreement*; and

- finally, we evaluate Japan's claims under Article 11 of the DSU that the Panel failed to make an "objective assessment of the facts of the case" in the course of its analysis of the United States' claims under the *SPS Agreement.*

II. Background

A. *The Disease at Issue*

8. The following summarizes "factual aspects" set out by the Panel in paragraphs 2.1–2.6 of the Panel Report. The disease[16] targeted by Japan's phytosanitary measure in this dispute is called "fire blight", often referred to by the scientific name for its bacterium, *Erwinia amylovora* or *E. amylovora*. Fruits infected[17] by fire blight exude bacterial ooze, or inoculum[18], which is transmitted primarily through wind and/or rain and by insects or birds to open flowers on the same or new host plants. *E. amylovora* bacteria multiply externally on the stigmas of these open flowers and enter the plant by

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[16]The Panel defined "disease" as "[a] disorder of structure or function in a plant of such a degree as to produce or threaten to produce detectable illness or disorder … usually with specific signs or symptoms." (Panel Report, para. 2.9)

[17]"Infection" was defined by the Panel as "[w]hen an organism (e.g., *E. amylovora*) has entered into a host plant (or fruit) establishing a permanent or temporary pathogenic relationship with the host." (*Ibid.*, para. 2.12) In contrast, the Panel noted that the term "infestation" would "[r]efer[] to the presence of the bacteria on the surface of a plant *without any implication that infection has occurred*." (*Ibid.*, para. 2.13 (emphasis added))

[18]The Panel defined "inoculum" as "[m]aterial consisting of or containing bacteria to be introduced into or transferred to a host or medium". The Panel explained that "[i]noculation is the introduction of inoculum into a host or into a culture medium. Inoculum can also refer to potentially infective material available in soil, air or water and which by chance results in the natural inoculation of a host." (*Ibid.*, para. 2.14)

various openings.[19] In addition to apple fruit, hosts of fire blight include pears, quince, and loquats, as well as several garden plants.[20] Scientific evidence establishes, as the Panel found, that the risk of introduction and spread of fire blight varies considerably according to the host plant.[21]

9. The uncontested history of fire blight reveals significant trans-oceanic dissemination in the 200-plus years since its discovery.[22] *E. amylovora*, first reported in New York State in the United States in 1793, is believed to be native to North America.[23] By the early 1900s, fire blight had been reported in Canada from Ontario to British Columbia, in northern Mexico, and in the United States from the East Coast to California and the Pacific Northwest. Fire blight was reported in New Zealand in 1919, in Great Britain in 1957, and in Egypt in 1964. The disease has spread across much of Europe, to varying degrees depending on the country, and also through the Mediterranean region. In 1997, Australia reported the presence of fire blight, but eradication efforts were successful and no further outbreaks have been reported. With respect to the incidence of fire blight in Japan, the parties disputed before the Panel whether fire blight had ever entered Japan; but the United States assumed, for purposes of this dispute, that Japan was, as it claimed, free of fire blight and fire blight bacteria.[24]

B. *The Product at Issue*

10. The United States argued before the Panel that the subject of the United States' challenge to Japan's phytosanitary measure at issue is the sole apple product that the United States exports, that is, "mature, symptomless" apples. The United States claimed that such apples constitute a separate, identifiable category of apples and that its categorization is "scientifically supported".[25] Japan did not accept the United States' categorization, arguing that "mature" and "symptomless" are subjective terms and that the distinction has no scientific basis.[26] Furthermore, Japan argued, its phytosanitary measure addressed the risk arising, not only from mature, symptomless apples that develop and spread fire blight, but also from the accidental introduction of infected or infested apples within a shipment of what are thought to be mature, symptomless apples destined for Japan.[27]

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[19]Panel Report, para. 2.2.

[20]*Ibid.*, para. 2.5.

[21]*Ibid.*, para. 8.271.

[22]*Ibid.*, para. 2.6.

[23]*Ibid.*, paras. 2.1 and 2.6.

[24]*Ibid.*, paras. 4.25-4.26.

[25]*Ibid.*, para. 8.26.

[26]*Ibid.*, paras. 4.99 and 8.26.

[27]*Ibid.*, para. 8.28(b).

11. In the light of this disagreement about the product scope of the dispute, the Panel identified the product that was subject to the measure at issue. The Panel observed that, if it were to consider the "product" to be limited to mature, symptomless apple fruit, as claimed by the United States, "many aspects of the measure at issue might, *ipso facto*, lose their *raison d'être* and may become incompatible with the *SPS Agreement*."[28] If, on the contrary, the Panel were to conclude that the product at issue was "any apple" fruit exported to Japan from the United States, then it would need to address the justification of all the requirements imposed by Japan as a whole.[29] The Panel also noted that it would be "illogical" to accept the United States' characterization because it would prevent the Panel from examining certain aspects of the measure that could be relevant, even if not expressly addressing mature, symptomless apples.[30]

12. In addition, the Panel stated that the request for the establishment of a panel submitted by the United States referred only to "US apples", which is less specific than mature, symptomless apples. The Panel said that the fact that the United States intended to address "only" mature, symptomless apples in its submission did not affect the Panel's mandate.[31] Finally, the Panel observed that scientific methods existed for distinguishing mature apples, and that an apple's susceptibility to fire blight was related to its maturity.

13. Considering the parties' arguments, as well as the experts' views[32], the Panel determined that the scope of the dispute should not, at a preliminary stage, be limited to mature, symptomless apples. The Panel considered it particularly inappropriate to limit the scope of the dispute before further consideration of the merits of the case in the light of the two assumptions it found to underlie the United States' characterization of the product at issue: (i) that mature, symptomless apple fruit is not a "pathway"[33] for fire blight and (ii) that shipments from the United States to Japan contain only mature, symptomless apples.[34]

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[28]Panel Report, para. 8.30. As an example of aspects of the measure that might in this manner lose their *raison d'être*, the Panel refers to the requirements covering pre-harvesting actions to be undertaken with respect to apples. (*Ibid.*)

[29]*Ibid.*

[30]*Ibid.*, para. 8.31. Aspects of the measure that the Panel thought might be relevant, notwithstanding the fact that they did not focus on mature, symptomless apple fruit, included requirements related to apples that *cannot* be exported (that is, prohibitions). (*Ibid.*)

[31]*Ibid.*, para. 8.32.

[32]The Panel engaged experts in consultation with the parties, as provided for in Article 11.2 of the *SPS Agreement*. (*Ibid.*, paras. 6.1-6.4)

[33]We understand the Panel to have used the term "pathway" to describe the steps through which a disease must travel for successful transmission from one plant to a new host plant. We employ the term in this Report in the same manner.

[34]Panel Report, para. 8.33.

C. *The Measure at Issue*

14. The United States argued before the Panel that, through the operation of various legal instruments[35], Japan maintains nine prohibitions or requirements imposed with respect to apple fruit imported from the United States.[36] With respect to the United States' description of the requirements for importation of apple fruit from the United States, Japan claimed that two such requirements amounted merely to "procedural steps" common to all phytosanitary measures[37], and that one of them should actually have been identified as two separate requirements.[38]

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[35]The Panel identified the following means by which Japan imposed the prohibitions or requirements relevant to this dispute: (i) the Plant Protection Law (Law No. 151; enacted 4 May 1950), as amended; (ii) the Plant Protection Regulations (Ministry of Agriculture, Forestry, and Fisheries Ordinance No. 73, enacted 30 June 1950), as amended; (iii) Ministry of Agriculture, Forestry and Fisheries Notification No. 354 (dated 10 March 1997); and (iv) related detailed rules and regulations, including Ministry of Agriculture, Forestry, and Fisheries Circular 8103. (Panel Report, para. 8.7)

[36]Panel Report, para. 8.5, citing Request for the Establishment of a Panel by the United States, WT/DS245/2, 8 May 2002; United States' first written submission to the Panel, para. 19; United States' answers to the Additional Questions posed by the Panel, 28 January 2003, para. 2. The nine requirements identified by the United States are as follows:

(a) The prohibition of imported apples from US states other than apples produced in designated areas in the states of Oregon or Washington;

(b) the prohibition of imported apples from orchards in which any fire blight is detected on plants or in which host plants of fire blight (other than apple trees) are found, whether or not infected;

(c) the prohibition of imported apples from any orchard (whether or not it is free of fire blight) should fire blight be detected within a 500-meter buffer zone surrounding such orchard;

(d) the requirement that export orchards be inspected three times yearly (at blossom, fruitlet, and harvest stages) for the presence of fire blight for purposes of applying the above-mentioned prohibitions;

(e) a post-harvest surface treatment of apples for export with chlorine;

(f) production requirements, such as chlorine treatment of containers for harvesting and chlorine treatment of the packing facility;

(g) post-harvest separation of apples for export to Japan from fruits destined to other markets;

(h) certification by US plant protection officials that fruits are free of fire blight and have been treated post harvest with chlorine; and

(i) confirmation by Japanese officials of the US officials' certification and inspection by Japanese officials of disinfection and packaging facilities.

(Panel Report, para. 8.5(a)-(i) (footnote omitted))

[37]The two requirements claimed to be "procedural" are items (h) and (i), *supra*, footnote 36.

[38]Panel Report, para. 8.6. Japan claimed that item (f), *supra*, footnote 36, should be regarded as two separate requirements: one for the chlorine treatment of harvesting containers and one for the chlorine treatment of packing facilities.

15. The Panel decided to regard the multiple requirements imposed on imported apple fruit from the United States as a single measure to be reviewed under the *SPS Agreement*.[39] With regard to the precise requirements to be considered as the elements of the single measure, the Panel found that the two requirements claimed by Japan to be "procedural" nevertheless constituted "phytosanitary measures" within the definition of the *SPS Agreement* and formed part of the collective set of conditions to be fulfilled for the importation of apple fruit from the United States.[40] The Panel also appears to have agreed with Japan's claim that one of the requirements identified by the United States should actually be understood as two separate requirements. Therefore, the Panel identified the focus of this dispute to be *a* measure applied by Japan to the importation of apple fruit from the United States, which measure consists of the following ten cumulatively-applied elements:

> (a) Fruit must be produced in designated fire blight-free orchards. Designation of a fire blight-free area as an export orchard is made by the United States Department of Agriculture (USDA) upon application by the orchard owner. Any detection of a blighted tree in this area by inspection will disqualify the orchard. For the time being, the designation is accepted only for orchards in the states of Washington and Oregon;
>
> (b) the export orchard must be free of plants infected with fire blight and free of host plants of fire blight (other than apples), whether or not infected;
>
> (c) the fire blight-free orchard must be surrounded by a 500-meter buffer zone. Detection of a blighted tree or plant in this zone will disqualify the export orchard;
>
> (d) the fire blight-free orchard and surrounding buffer zone must be inspected at least three times annually. US officials will visually inspect twice, at the blossom and the fruitlet stages, the export area and the buffer zone for any symptom of fire blight. Japanese and US officials will jointly conduct visual inspection of these sites at harvest time. Additional inspections are required following any strong storm (such as a hail storm);
>
> (e) harvested apples must be treated with surface disinfection by soaking in sodium hypochlorite solution;
>
> (f) containers for harvesting must be disinfected by a chlorine treatment;
>
> (g) the interior of the packing facility must be disinfected by a chlorine treatment;
>
> (h) fruit destined for Japan must be kept separated post-harvest from other fruit;

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[39]Panel Report, para. 8.17.

[40]*Ibid.*, para. 8.24.

(i) US plant protection officials must certify that fruits are free from fire blight and have been treated post harvest with chlorine; and

(j) Japanese officials must confirm the US officials' certification and Japanese officials must inspect packaging facilities.[41] (footnote omitted)

16. At the oral hearing, neither participant disagreed that the measure identified by the Panel as set out in the preceding paragraph, derived from the application of several legal instruments related to quarantine and other restrictions placed by Japan on imported agricultural products, is the measure before us on appeal.[42]

III. Arguments of the Participants and the Third Participants

A. *Claims of Error by Japan – Appellant*

1. Article 2.2 of the *SPS Agreement*

17. Japan argues that, when evaluating the United States' claim under Article 2.2 of the *SPS Agreement*, the Panel erred in concluding that Japan's measure, as applied to infected apple fruit *and* to mature, symptomless apples, is maintained without sufficient scientific evidence. In Japan's view, the Panel failed to allocate properly the burden of proof under Article 2.2 because it incorrectly arrived at a conclusion on the United States' claim despite the fact that the United States had failed to establish a *prima facie* case as to either infected apple fruit or mature, symptomless apples.

18. First, as to *infected* apple fruit, Japan claims that, to establish a *prima facie* case under Article 2.2 with respect to the sufficiency of scientific evidence on the risk of completion of the pathway for transmission of fire blight through infected apple fruit, the United States had to prove either (i) that the pathway would not be completed even if infected apple fruit were exported to Japan, *or* (ii) that Japan's scientific evidence on this risk would nonetheless be insufficient for the measure in question. However, Japan argues, the United States limited its evidence on the issue of pathways for fire blight to transmission of the disease through mature, symptomless apple fruit. Therefore, according to Japan, the United States advanced no factual claim or evidence with respect to infected apple fruit. Indeed, Japan claims, the United States "explicitly disavowed attempts or intent" to establish a *prima facie* case of insufficient scientific evidence on the risk posed by infected apple

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[41]Panel Report, para. 8.25(a)-(j).

[42]Japan's and the United States' responses to questioning at the oral hearing.

fruit.[43] In the absence of such a *prima facie* case, Japan argues, the Panel was required to find that Japan had not acted inconsistently with its obligations under Article 2.2.

19. Japan submits that, the Panel's finding that Japan had acted inconsistently with respect to the application of its measure to infected apple fruit was premised on the Panel's view that Japan bore the burden of proof as regards the risk posed by infected apple fruit. Japan contends that, as the United States had declined to assert and prove a *prima facie* case in respect of infected apple fruit, the United States was not entitled to a presumption that the measure is maintained without sufficient scientific evidence. Citing the Appellate Body Report in *EC – Hormones*, Japan further argues that the Panel's shifting of the burden of proof to Japan was "[p]remature"[44] because it occurred *before* the demonstration of a *prima facie* case by the United States. Therefore, according to Japan, the Panel erred in overlooking the absence of a *prima facie* case by the United States and thereby shifting the burden of proof to Japan.

20. Japan refers to possible explanations that might justify a panel's finding made without the establishment of a *prima facie* case. Japan contends that these possible explanations are inapplicable to the present case or have no merit in law. First, Japan examines the possibility that a panel might be allowed to find a particular fact—not specifically asserted by the complainant—if the complaining party made a general factual assertion under the provision in question. Japan argues, however, that, in the present case, the United States not only failed to address a particular factual claim on infected apple fruit, but consciously declined to make that factual claim and requested that the Panel delete the finding. Therefore, in Japan's view, there is no *general* factual argument of the complaining party that could serve as an "umbrella" argument under which the Panel could have made a specific finding.[45]

21. Japan also considers the possibility that a panel may be authorized to "distill" a generalized case from the argumentation of the complaining party, regardless of whether that party in fact has made a particular claim.[46] However, according to Japan, the Appellate Body "*implicitly* rejected this sort of arbitrary distillation of arguments"[47] in reversing the panel's finding under Article 5.6 of the *SPS Agreement* in *Japan – Agricultural Products II*.[48]

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[43]Japan's appellant's submission, para. 23.

[44]*Ibid.*, p. 7, subtitle *ii*.

[45]*Ibid.*, para. 30.

[46]*Ibid.*, para. 32.

[47]*Ibid.* (original italics)

[48]Appellate Body Report, para. 143(h).

22. Finally, Japan claims that the Panel's conclusion as to *infected* apple fruit could be understandable if the risk of the spread of fire blight through infected apple fruit were a "*defensive plea*", for which the defendant normally bears the burden of proof.[49] However, Japan argues, Article 2.2 does not impose any requirement of proof on the importing Member. As a result, in Japan's view, it is the complainant's burden to prove that there is not sufficient scientific evidence for the measure in respect of a particular pathway, and not the respondent's burden to establish that such evidence exists.

23. For Japan, the Panel's finding of inconsistency with Article 2.2 is based, in part, on the erroneous finding of a *prima facie* case made with respect to *infected* apple fruit. Therefore, Japan requests the Appellate Body to reverse the Panel's finding that the measure at issue is maintained "without sufficient scientific evidence" within the meaning of Article 2.2 of the *SPS Agreement*.

24. Turning to Japan's claim as it relates to mature, symptomless apple fruit, Japan claims the Panel did not respect the discretion conferred by Article 2.2 on an importing Member in the evaluation of the relevant scientific evidence. Japan submits that misinterpretation of Article 2.2 led the Panel to conclude, erroneously, that the United States had established a *prima facie* case under Article 2.2 with respect to mature, symptomless apple fruit.

25. Japan asserts that Article 2.2 does not mandate any specific method for a Member to evaluate scientific evidence. Therefore, in Japan's submission, the provision should be interpreted and applied to allow a "certain degree of discretion" on the part of the importing Member to determine how to choose, weigh, and evaluate such scientific evidence.[50] Japan argues that the Panel failed to accord such discretion when considering the scientific evidence submitted by Japan, because "the Panel evaluated the scientific evidence in accordance with the experts' view, despite the contrary view of an importing Member (Japan)."[51] As an example of the Panel's improper approach, Japan notes that the Panel found that "mature apples are unlikely to be *infected* by fire blight if they do not show any symptoms", despite the fact that Japan had submitted evidence of an experiment suggesting the contrary.[52]

26. Japan points out that the Panel's risk analysis differed from the risk assessment undertaken by Japan. According to Japan, the Panel: divided the overall risk of apple fruit serving as a pathway for entry, establishment and spread of fire blight into individual components; identified the level of risk

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[49]Japan's appellant's submission, para. 38. (original italics)

[50]*Ibid.*, para. 76.

[51]*Ibid.*, para. 78.

[52]*Ibid.*, quoting Panel Report, para. 8.139. (original italics)

for each component; and reviewed whether the corresponding risk for each component was established with sufficient scientific evidence.[53] In contrast, Japan argues, Japan's assessment of the risk reflects the historical facts of trans-oceanic spread of the bacteria, the rapid growth of international trade, and the lack of knowledge on the pathways of transmission of fire blight. Japan contends that the Panel should not have discarded Japan's approach to risk assessment, which was "reasonable as well as scientific" and derived from "prudence and precaution".[54] Therefore, according to Japan, the Panel's improper analysis of the scientific evidence underlying Japan's measure, failed to recognize the discretion conferred on an importing Member by Article 2.2.

27. Japan asserts that the Panel, as a result of its misinterpretation of Article 2.2, erroneously found that the United States had established a *prima facie* case regarding mature, symptomless apples. Japan submits that the United States failed to "raise a presumption that there [were] no *relevant* scientific studies or reports"[55] supporting the measure at issue because it did not rebut the following points established by Japan: (i) the unknown cause of the trans-oceanic dissemination of fire blight and (ii) the possibility of a physiologically mature apple being infected and shipped to Japan before showing noticeable symptoms. As a result, in Japan's view, the Panel could not have concluded properly that the measure was inconsistent with Japan's obligations under Article 2.2.

28. Accordingly, Japan requests the Appellate Body to reverse the Panel's finding that the measure at issue is maintained "without sufficient scientific evidence" within the meaning of Article 2.2 of the *SPS Agreement*.

2. Article 5.7 of the *SPS Agreement*

29. Japan challenges the Panel's overly "narrow"[56] interpretation of Article 5.7 of the *SPS Agreement* and its consequent finding that the risk of transmission of fire blight from United States apples to plants in Japan does not constitute a "case[] where relevant scientific evidence is insufficient", as required by Article 5.7.

30. Japan asserts that, according to the Panel, Article 5.7 does not apply to the present situation of fire blight disease, where scientific studies as well as practical experience exist, because Article 5.7 was designed for situations "where little, or no, reliable evidence was available on the *subject matter*

[53]Japan's appellant's submission, para. 72, citing Panel Report, paras. 8.89, 8.122, 8.139, 8.153, 8.157, and 8.161.

[54]Japan's appellant's submission, paras. 81-82.

[55]*Ibid.*, para. 83, quoting Panel Report, para. 8.106. (original italics)

[56]Japan's appellant's submission, para. 94.

at issue."[57] In Japan's view, this reading of the provision is "far too narrow" because Article 5.7 should also be applied to a situation where, although much literature is found concerning a "certain phytosanitary phenomenon"[58], there are particular aspects of that phenomenon as to which evidence is not available, or questions remain unanswered.[59]

31. Japan contends that the Panel's reliance on *Japan – Agricultural Products II* for its reading of Article 5.7 is misplaced because the Appellate Body's decision in that case does not *a priori* exclude the application of Article 5.7 even where relevant scientific evidence is sufficient "*in general*".[60] Japan asserts that the phrase "[w]here relevant scientific evidence is insufficient", in Article 5.7, should be interpreted to relate to a "*particular* situation" in relation to a "*particular* measure" or a "*particular* risk".[61] Therefore, Japan argues, different situations concerning the same disease should be considered separately, not in general, for purposes of Article 5.7, because they might involve "two separate sets of evidence or information that are materially different from each other."[62]

32. Japan submits that the conclusion of the Panel in its analysis under Article 5.7 is premised on its assessment that, as regards fire blight, "scientific studies as well as practical experience have accumulated for the past 200 years".[63] Japan contends that the Panel was not authorized to base its conclusion on the "history" of 200 years of studies and practical experience because the United States did not claim that such "history" undermined Japan's adoption of the provisional measure pursuant to Article 5.7.[64] According to Japan, because the United States had itself not raised such an objection based on the "history" of evidence and experience related to fire blight, the Panel could not draw a conclusion regarding Article 5.7 on the basis of this "history".

33. Japan further argues that the Panel's interpretation of Article 5.7 implicitly draws an inappropriate distinction between what Japan identifies as "unresolved uncertainty" and "new uncertainty", and that such a distinction is inconsistent with the text of the *SPS Agreement*. Japan employs the term "unresolved uncertainty" to refer to uncertainty that the existing scientific evidence

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[57]Japan's appellant's submission, para. 93, quoting Panel Report, para. 8.219. (emphasis added by Japan)

[58]Japan's appellant's submission, para. 94.

[59]*Ibid*.

[60]*Ibid*., para. 95, quoting Panel Report, para. 8.218. (original italics)

[61]Japan's appellant's submission, para. 96. (emphasis added)

[62]*Ibid*., para. 96.

[63]*Ibid*., para. 93, quoting Panel Report, para. 8.219; and para. 97.

[64]Japan's appellant's submission, para. 97.

is not able to resolve despite its accumulation over a long period of time.[65] "New uncertainty", according to Japan, refers to cases where a new risk has been identified and little or no reliable scientific evidence is available on it.[66]

34. Japan claims that the Panel's interpretation of Article 5.7 would deny its applicability as long as there had accumulated, over the years, scientific studies as well as practical experience on the risk in general. According to Japan, this implies that cases of "unresolved uncertainty" would not be covered by Article 5.7; Japan submits that such "inflexibility" is not based on the text or a proper interpretation of the provision.[67] For Japan, Article 5.7 makes no distinction between "new uncertainty" and "unresolved uncertainty", and thereby encompasses both types of uncertainty.

35. Japan asserts that the standard in Article 2.2 of "sufficient scientific evidence" requires a rational relationship between the evidence and a *particular* measure. Japan also notes the Appellate Body's characterization in *Japan – Agricultural Products II* of Article 5.7 as a "*qualified* exemption"[68] from the requirement of "sufficient scientific evidence" in Article 2.2. Thus, Japan claims, in the context of Article 2.2, the phrase "cases where relevant scientific evidence is insufficient" in Article 5.7 should properly be understood as referring to "a particular situation in respect of a particular *measure* to which Article 2.2 applies (or a particular risk), but not to a particular *subject matter* in general, which Article 2.2 does not address."[69]

36. Because Article 5.7 is intended to cover situations of "unresolved uncertainty" as well as "new uncertainty", Japan argues that the "unresolved uncertainty" in this case was improperly discounted by the Panel. Japan asserts that, in the present case, the Panel found that "unresolved, scientific uncertainty" still remained as to the risk of shipment of infected apple fruit, notwithstanding 200 years of experience of fire blight.[70] According to Japan, the experts themselves expressed the need for caution with respect to unresolved uncertainty, as they considered reasonable the continuing requirement of a fire blight-free orchard, and as they voiced strong reservations about the possibility of removing all elements of Japan's phytosanitary measure at once. Japan further argues that a novel experiment it introduced during the Panel proceedings to show the possibility of infection of the inside of apple fruit via pedicel was not challenged by any of the experts consulted by the Panel. For

[65]Japan's appellant's submission, para. 98.

[66]*Ibid*., and footnote 76 thereto.

[67]*Ibid*., para. 100.

[68]*Ibid*., para. 102, quoting Appellate Body Report, para. 80. (original italics)

[69]Japan's appellant's submission, para. 102. (original italics)

[70]*Ibid*., para. 106.

Japan, the results of the experiment indicate that the available information on fruit infection is far from conclusive, contrary to the assertions of the United States. Japan adds that the fact that other countries do not impose phytosanitary measures in response to "unresolved uncertainty" regarding fire blight does not necessarily mean that such uncertainty does not exist or is negligible. Instead, according to Japan, it is the prerogative of each importing Member, corresponding to its appropriate level of protection, to determine if it will accept such uncertainty.

37. Japan further contends that this case involves "new uncertainty" *as well as* "unresolved uncertainty". Referring to the testimony of the experts, Japan argues that if it has to remove or modify its phytosanitary measure to bring it into conformity with Article 2.2, the impact of this action will create "new uncertainty", as the change to the phytosanitary requirements will result in a new situation of risk, for which little, or no, reliable evidence is available. Therefore, in Japan's view, even under the Panel's unduly narrow interpretation of Article 5.7, this provision should be considered applicable to the present case.

38. Japan states that the Panel erred by concluding that the first of the four prerequisites for a provisional measure under Article 5.7 (that is, the existence of a case where relevant scientific evidence is insufficient), as articulated by the Appellate Body in *Japan – Agricultural Products II*, was not met. Japan further asserts that the Panel should have examined whether Japan's measure satisfied the remaining three requirements for a provisional measure. Accordingly, Japan requests that the Appellate Body complete the legal analysis with respect to the remaining three prerequisites identified in *Japan – Agricultural Products II* for a provisional measure.[71] In this respect, Japan submits that it satisfies these three remaining requirements.

39. Japan therefore requests the Appellate Body to reverse the Panel's finding under Article 5.7, to complete the legal analysis, and to find that Japan's measure constitutes a provisional measure pursuant to Article 5.7 of the *SPS Agreement*.[72]

3. Article 5.1 of the *SPS Agreement*

40. Japan appeals the Panel's legal interpretation of Article 5.1 of the *SPS Agreement*. Japan claims that the Panel's finding that Japan has acted inconsistently with Article 5.1 is premised on this erroneous interpretation, in particular, on three legal errors perpetrated by the Panel when applying

[71] See *infra*, para. 60.

[72] Japan's appellant's submission, para. 121.

Article 5.1 in its examination of Japan's risk assessment (referred to by the Panel as the "1999 PRA").[73]

41. First, Japan claims that the Panel improperly interpreted Article 5.1 as requiring the risk assessment to be "specific" to apple fruit. In Japan's view, Article 5.1 requires a "risk assessment"; but does not speak to the precise *manner* in which that risk assessment must be conducted. As such, according to Japan, the requirement of "specificity", identified in *EC – Hormones*, should be understood as referring to the "[specificity of] the risk" rather than to "how a risk assessment is done".[74] On the basis of this understanding, Japan does not find legally significant the Panel's observation that Japan's risk assessment was "conducted on the basis of a *general assessment* of possibilities of introduction of fire blight into Japan, through a variety of hosts, including - *but not exclusively* - *apple fruit*".[75] Japan emphasizes the fact that it conducted the pest risk assessment for fire blight in accordance with its own "methodology", namely, one that considers "all importation of plants and fruits which could be potential vectors of the bacteria".[76] Selection of such a methodology, according to Japan, is well within the discretion accorded each importing Member by Article 5.1 in the conduct of its risk assessment. Therefore, Japan argues, it would be "erroneous to find the 1999 PRA not specific enough".[77]

42. Secondly, Japan contends that the Panel read Article 5.1 improperly as requiring Japan to "consider[] any alternative measures other than the[] existing measures."[78] Japan submits that the consideration of alternative phytosanitary measures relates to the "*methodology*" of the risk assessment, which is not addressed by Article 5.1.[79] Japan notes that under its risk assessment methodology, when an exporting Member makes "a specific request and a proposal [for the lifting of the default import prohibition], a risk assessment would have to be made in connection with that

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[73]The "1999 PRA" refers to the "Report on Pest Risk Analysis concerning Fire Blight Pathogen (*Erwinia amylovora*) - Fresh apples produced in the United States of America", *Ministry of Agriculture, Forestry and Fisheries, Plant Protection Division* (August 1999); Exhibit JPN-32, submitted by Japan to the Panel. This pest risk analysis follows an earlier such analysis deemed by the Panel to be relevant to the entry and spread of fire blight (Panel Report, para. 8.246) and identified by Japan as the "Pest Risk Analysis concerning Fire Blight Pathogen (*Erwinia amylovora*)" (1996); Exhibit JPN-31, submitted by Japan to the Panel. The Panel observed that "the parties agree that the 1999 PRA is the main relevant document" to be evaluated as Japan's risk assessment under Article 5.1 of the *SPS Agreement*. (Panel Report, para. 8.247) At the oral hearing, both participants reaffirmed the focus of the Panel's Article 5.1 analysis to be the 1999 PRA.

[74]Japan's appellant's submission, para. 129.

[75]Panel Report, para. 8.270. (emphasis added)

[76]Japan's appellant's submission, para. 128.

[77]*Ibid.*, para. 129.

[78]*Ibid.*, para. 133, quoting Panel Report, para. 8.285.

[79]Japan's appellant's submission, para. 133. (emphasis added)

particular proposal."[80] Japan argues that its reliance on "cumulative measures" reflects not the inadequacy of its risk assessment, as the Panel suggests, but the "high level of protection" sought to be achieved by Japan.[81] Therefore, in Japan's view, Article 5.1 does not require Japan to have considered alternative measures in its risk assessment.

43. Finally, Japan argues that the Panel improperly evaluated Japan's risk assessment in the light of information that became available only subsequent to the risk assessment. Japan draws a distinction between (i) compliance with Article 5.1 at the time of the "initial" risk assessment and (ii) "continu[ing]" compliance with Article 5.1 in the light of subsequent information.[82] Japan argues that, in the first case, the importing Member should "fully complete[]" a risk assessment, consistent with the *SPS Agreement*, and on the basis of "information available at [that] time".[83] In the second case, the requirement of a "full, formal risk assessment"[84] immediately after the discovery of new evidence would be "unreasonable"[85] and, therefore, recently discovered evidence should be considered only "in the context of investigating whether … the party *continues to comply* with Article 5.1".[86]

44. With regard to subsequent information, Japan advances three grounds for considering as "unreasonable" the requirement of a "full" risk assessment. First, Japan argues that the importing Member should be given an opportunity to consider whether the recent information necessarily warrants a new risk assessment. Secondly, as there is no requirement under the *SPS Agreement* that a risk assessment be a formal process, and as Japan has already taken into account recent evidence filed by the United States and New Zealand during the Panel proceeding, Japan submits that it has already "substantively fulfilled the risk assessment requirements" of Article 5.1.[87] Finally, Japan notes that a formal risk assessment process takes time to complete and that the review of newly available information is an "on-going process".[88] Because such information comes to an importing Member's knowledge in "piecemeal" fashion, Japan argues, that Member cannot be expected to conduct a "full risk assessment" for every new piece of evidence.[89] Therefore, in Japan's view, "the

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[80]Japan's appellant's submission, para. 133.

[81]*Ibid.*, para. 134.

[82]*Ibid.*, para. 136.

[83]*Ibid.*, para. 135.

[84]*Ibid.*, para. 136.

[85]*Ibid.*, para. 138.

[86]*Ibid.*, para. 136. (emphasis added)

[87]*Ibid.*, para. 137.

[88]*Ibid.*, para. 138.

[89]*Ibid.*

requirement of a formal risk assessment should mean that the assessment be performed in due course."[90]

45. Japan therefore requests the Appellate Body to reverse the Panel's findings with respect to Article 5.1 of the *SPS Agreement*.

4. Article 11 of the DSU

(a) The Panel's objective assessment under Article 2.2 of the *SPS Agreement*

46. Japan challenges on appeal the Panel's analysis of the completion of the last stage of the pathway for transmission of fire blight from "infected" apple fruit. According to Japan, the errors of the Panel in this analysis constitute a failure to make an "objective assessment of the facts of the case" in accordance with Article 11 of the DSU.

47. First, referring to the Panel's reasoning in paragraph 8.166 of the Panel Report, Japan argues that the evidence and experts' opinions relied upon by the Panel were focused on the pathway of transmission of fire blight from mature, symptomless apples and did not take into consideration the pathway from *infected* apple fruit. Japan contends that the Panel failed to present how the evidence related to *mature, symptomless* apple fruit should be applied to the issue of *infected* apples, and therefore, the Panel erroneously relied on such evidence in arriving at a conclusion for *all* kinds of apple fruit.

48. Secondly, Japan asserts that, in the same paragraph of the Panel Report, the Panel, when considering evidence of experiments of inoculated apples, made a "factual error"[91] in declaring that "discarded apples have not led to any visible contamination, *even when ooze was reported to exist*".[92] According to Japan, this declaration is a mischaracterization of the underlying scientific studies, which actually reported that no ooze was observed, and is inconsistent with other evidence in the Panel record. Such a "material error" in this finding, in Japan's view, "implies that this key paragraph on completion of the pathway was not given careful thought", and is therefore inconsistent with the standard of review in Article 11 of the DSU.[93]

49. Thirdly, Japan notes that the Panel rejected the United States' argument that the caution emphasized by the experts with respect to changes in Japan's measure should be equated to a

[90] Japan's appellant's submission, para. 138.

[91] *Ibid.*, para. 52.

[92] *Ibid.*, quoting Panel Report, para. 8.166. (emphasis added by Japan)

[93] Japan's appellant's submission, para. 54.

"theoretical risk", as such risk was described by the Appellate Body in *EC – Hormones*.[94] In rejecting this characterization, Japan argues, the Panel necessarily viewed the risk from infected apples to be "real" and implicitly recognized that the pathway from infected apples could, in fact, be completed.[95] In Japan's view, the Panel's determination that the risk of transmission of fire blight from infected apples was not "theoretical", cannot be reconciled with its finding on the likelihood of completion of the pathway.

50. Fourthly, Japan contends that the Panel failed in its analysis to take into account properly the "precautionary principle" and the need for caution that was expressed by the experts. Japan claims that, although the expressions of caution by the experts "do not identify a concrete path of the dissemination of the disease"[96], the Panel's failure to accord them "greater weight"[97] in its evaluation of the evidence is inconsistent with the Panel's duty to make an "objective assessment of the facts of the case" under Article 11 of the DSU.

51. In the light of these errors in the Panel's assessment of the facts of the case, Japan requests the Appellate Body to find that the Panel failed to discharge its functions under Article 11 of the DSU with respect to is evaluation of the United States' claim under Article 2.2 of the *SPS Agreement*.

(b) The Panel's objective assessment under Article 5.1 of the *SPS Agreement*

52. Japan claims that the Panel failed to fulfill its obligations under Article 11 of the DSU when evaluating the United States' claim under Article 5.1 of the *SPS Agreement*. In particular, Japan contests the Panel's conclusions that Japan's risk assessment (the 1999 PRA) insufficiently analyzed the "probability" and "pathways" when considering the likelihood of entry, establishment or spread of fire blight.

53. Concerning the "probability" considered in the risk assessment, Japan challenges the Panel's finding that the 1999 PRA does not provide any "quantitative or qualitative" assessment of the "probability" of entry, establishment or spread of fire blight in Japan.[98] According to Japan, the Panel reached this erroneous conclusion by "ignoring the clarifying material supplied by Japan" and relying solely on its own understanding and interpretation of the risk assessment contained in the

[94]Appellate Body Report, para. 186.

[95]Japan's appellant's submission, para. 61.

[96]*Ibid*., para. 68.

[97]*Ibid*., para. 69.

[98]*Ibid*., para. 130, quoting Panel Report, para. 8.275.

1999 PRA.[99] With regard to the risk assessment's examination of "pathways" of transmission, Japan claims that the Panel again focused exclusively on the text of the 1999 PRA and overlooked Japan's submissions and other explanatory material on the subject. Such a "clear aversion" to considering the additional evidence and explanations submitted by Japan, in Japan's view, constitutes a failure to make an "objective assessment of the facts of the case".[100]

54. Japan therefore requests the Appellate Body to find that the Panel acted inconsistently with its obligations under Article 11 of the DSU when evaluating the United States' claim under Article 5.1 of the *SPS Agreement*.

B. *Arguments of the United States – Appellee*

1. Article 2.2 of the *SPS Agreement*

55. Because the United States agrees with Japan that the Panel erred in making findings as to immature apples[101], the United States limits its discussion under Article 2.2 of the *SPS Agreement* to "mature, symptomless" apples. In this respect, the United States argues that Japan's arguments in favour of reversing the Panel's findings are based either on the re-weighing of evidence before the Panel, or on the imposition of legal standards that are "not found in the SPS Agreement".[102]

56. The United States first claims that Japan's allegations under Article 2.2 constitute a challenge to the Panel's fact-finding. These allegations, according to the United States, cover the Panel's weighing of the significance of the 1990 van der Zwet study[103] and of the history of trans-oceanic dissemination of fire blight, as well as the Panel's factual conclusions with respect to the possibility of infection of mature, symptomless apples. The United States submits that such a challenge to the Panel's fact-finding may be raised on appeal only in the context of a claim under Article 11 of the DSU. The United States notes that Japan does not allege a violation of Article 11 with respect to these issues. Therefore, in the view of the United States, Japan's allegations under Article 2.2 should be rejected by the Appellate Body and the Panel's finding that Japan acted inconsistently with Article 2.2 of the *SPS Agreement* should be upheld.

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[99]Japan's appellant's submission, para. 131.

[100]*Ibid.*, para. 132.

[101]United States' appellee's submission, para 5. See also, *infra*, paras. 82 *ff*.

[102]United States' appellee's submission, para 15.

[103]T. van der Zwet *et al.*, "Population of *Erwinia amylovora* on External and Internal Apple Fruit Tissues", *Plant Disease* (1990), Vol. 74, pp. 711-716; Exhibit JPN-7, submitted by Japan to the Panel.

57. The United States rejects Japan's arguments that the Panel failed to give appropriate weight to Japan's interpretation of the evidence, and hence failed to accord the appropriate "discretion" to the importing Member in the evaluation of scientific evidence and the consequent establishment of a phytosanitary measure.[104] According to the United States, the "discretion" enjoyed by importing Members should not prevent a panel from finding that a Members' judgement is unsupported by scientific evidence. In the United States' view, Japan's position is inconsistent with the Appellate Body's statement in *Australia – Salmon* that panels "are not required to accord to factual evidence of the parties the same meaning and weight as do the parties."[105] The United States submits that Japan's position also "echoes" the interpretation proffered by Japan and rejected by the Appellate Body in *Japan – Agricultural Products II.*[106]

58. The United States contests Japan's argument that the United States failed to prove the absence of scientific evidence concerning "mature, symptomless" apples serving as a pathway. The United States asserts that Japan "distorts the applicable burden [of proof]": it transforms the requirement of "rais[ing] a presumption" that there was no relevant scientific evidence supporting the measure, into an obligation of "prov[ing] the absence of scientific evidence".[107] The United States contends that the *SPS Agreement* cannot be interpreted as imposing upon the complaining Member the burden of either proving a "negative"[108], or disproving "all speculation on hypothetical risks".[109] According to the United States, Japan itself acknowledged that meeting this burden of proof would be an "impossible" task.[110] In contrast to this impossibility, the United States argues, a complaining party must be given the possibility of raising a presumption of the absence of relevant scientific evidence.

59. The United States recalls that Article 2.2 requires that a measure not be maintained "without sufficient scientific evidence". According to the United States, this requirement does not mean that "uncertainty" will be completely eradicated because "uncertainty" is an inherent characteristic of science, which cannot provide absolute certainty, as explained by the Appellate Body in *EC – Hormones*.[111] In the light of this uncertainty that can never be eliminated, the United States rejects as speculative Japan's suggestion that "apple fruit *may have been* the means by which trans-oceanic dissemination of fire blight occurred in the past" or that "*E. amylovora* bacteria *may* be

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[104]United States' appellee's submission, para. 19, quoting Japan's appellant's submission, para. 76.

[105]Appellate Body Report, para. 267.

[106]United States' appellee's submission, para 19, citing Appellate Body Report, para. 82.

[107]United States' appellee's submission, para. 21.

[108]*Ibid.*, para. 22.

[109]*Ibid.*, para. 20.

[110]*Ibid.*, para. 22, quoting Japan's appellant's submission, para. 85.

[111]United States' appellee's submission, para. 23, quoting Appellate Body Report, para. 186.

present in physiologically mature apples".[112] These propositions, the United States claims, are based respectively on allegations that the causes of trans-oceanic dissemination are still unknown, and that the moment of maturity is not precise. Such "speculation", in the view of the United States, cannot constitute "sufficient scientific evidence" in the face of research establishing that mature apples do not serve as a pathway for transmission of fire blight.

60. Therefore, the United States requests the Appellate Body to uphold the Panel's finding that Japan's measure, as applied to mature, symptomless apples, is maintained "without sufficient scientific evidence" and is therefore inconsistent with Japan's obligations under Article 2.2 of the *SPS Agreement*.

2. Article 5.7 of the *SPS Agreement*

61. The United States supports the Panel's interpretation and application of Article 5.7 of the *SPS Agreement*. It requests the Appellate Body to reject Japan's appeal in this regard and uphold the Panel's findings accordingly.

62. The United States contends that the mere fact that some uncertainty exists in the evidence before a panel, whether "unresolved" or "new", cannot justify the conclusion that relevant scientific evidence is insufficient. According to the United States, such a conclusion must be based on an assessment of the evidence itself. The United States adds, to illustrate its point, that the uncertainty as to the means by which trans-oceanic dissemination of fire blight occurred is not relevant to the issue of transmission of fire blight by mature apples in the face of "specific, direct, and voluminous" evidence that mature apple fruit does not transmit fire blight.[113]

63. The United States further contends that the context of Article 5.7 clarifies the concept of "sufficiency" under Article 5.7. The United States notes that the second sentence of Article 5.7 requires Members imposing provisional phytosanitary measures to "obtain *additional* information necessary for a more objective assessment of risk."[114] According to the United States, this provision implies that information necessary for an objective risk assessment is lacking at the time the provisional measure is adopted. The United States finds this implication "logical" because, if sufficient information existed for an objective risk assessment, a provisional measure would be unnecessary.[115] As such, in the view of the United States, the "sufficiency" of evidence relevant to

[112]United States' appellee's submission, para. 24. (original italics)
[113]*Ibid.*, para. 29.
[114]*Ibid.*, para. 30, quoting Article 5.7 of the *SPS Agreement*. (emphasis added by the United States)
[115]United States' appellee's submission, para. 31.

Article 5.7 should be defined in relation to the sufficiency of evidence for an objective risk assessment.

64. With respect to the concept of "unresolved uncertainty", the United States claims that the examples of "unresolved uncertainty" cited by Japan "do not even constitute relevant scientific evidence."[116] The statements of caution by the experts, according to the United States, were based on policy judgements rather than scientific considerations, as the experts themselves acknowledged. In the view of the United States, these statements cannot be considered *scientific* evidence within the meaning given by the Panel to this term.[117] The United States also argues that the unpublished study cited by Japan cannot constitute uncertainty that leads to a conclusion of insufficient relevant scientific evidence, because the experts did not agree with Japan as to the uncertainty identified by the study. Thus, according to the United States, Japan's purported uncertainties cannot overcome the extensive studies on fire blight on which the Panel relied to determine that relevant scientific evidence was not insufficient.

65. The United States contests Japan's attempt to identify "new uncertainty" that would justify the measure under Article 5.7. The United States claims that uncertainties related to the possible removal of Japan's measure do not render the relevant scientific evidence "insufficient" within the meaning of Article 5.7. Such uncertainties, in the view of the United States, constitute "[h]ypothetical speculation" that does not meet the requirements of Article 5.7, just as speculation cannot satisfy the requirements of Article 5.1.[118] If Japan's interpretation were accepted, the United States contends, "the exception in Article 5.7 would swallow the whole of the SPS Agreement."[119]

66. The United States argues that, in any event, Japan does not meet the remaining three requirements of Article 5.7 set out by the Appellate Body in *Japan – Agricultural Products II*.[120] The United States claims that Japan's measure cannot be based on "available pertinent information", as stated in Article 5.7, because Japan has not cited such information, nor does such information exist given the evidence establishing that the pathway cannot be completed for mature apple fruit. In addition, the United States argues, Japan has not sought to obtain additional information for a more objective risk assessment, as Japan has "disregarded" the evidence on the lack of susceptibility of

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[116]United States' appellee's submission, para. 34.

[117]The Panel stated that scientific evidence is "evidence gathered through scientific methods" and that it "excludes in essence not only insufficiently substantiated information, but also such things as a non-demonstrated hypothesis." (*Ibid.*, para. 38, quoting Panel Report, paras. 8.92-8.93)

[118]United States' appellee's submission, para. 42, citing Appellate Body Report, *EC – Hormones*, para. 186.

[119]United States' appellee's submission, para. 42.

[120]Appellate Body Report, para. 89.

mature apples to fire blight infection and bacterial presence.[121] According to the United States, Japan has also not reviewed the measure within a reasonable period of time, as Japan "has not examined, let alone sought, information" concerning the critical elements of the pathway for transmission of fire blight.[122] Thus, in the view of the United States, Japan meets none of the requirements set forth under Article 5.7.

67. Therefore, the United States requests the Appellate Body to uphold the Panel's finding that Japan acted inconsistently with its obligations under Article 5.7 of the *SPS Agreement*.

3. Article 5.1 of the *SPS Agreement*

68. The United States supports the Panel's interpretation of and analysis under Article 5.1 of the *SPS Agreement*, and therefore requests the Appellate Body to reject Japan's appeal on this issue.

69. The United States argues first that the Panel properly applied the requirement of "specificity" when evaluating Japan's risk assessment (the 1999 PRA). The United States observes that Japan acknowledges that the 1999 PRA "did not specifically focus on a particular commodity" (in particular, on apple fruit).[123] The United States contests Japan's claim, however, that the lack of a product-specific focus in the risk assessment was only a matter of "methodology" in order to assess the risk of multiple vectors, including that from apple fruit. According to the United States, the Panel's interpretation properly required the assessment under Article 5.1 to be sufficiently specific to the risk at issue. The United States submits that, in order for a measure imposed on a particular product to be "rationally" related to, or based on, an assessment of risks, that measure must "specifically" focus on a "product".[124] That Japan characterizes the lack of such focus in the 1999 PRA as a "methodology" does not, according to the United States, exempt the risk assessment from this specificity requirement. The United States asserts that Japan's risk assessment evaluated the risk related to several hosts but did not sufficiently consider the risks "specifically associated with the commodity at issue: US apple fruit exported to Japan."[125] Therefore, the United States contends, the 1999 PRA failed to meet the requirement of specificity under Article 5.1, as correctly found by the Panel.

[121] United States' appellee's submission, para. 46.

[122] *Ibid.*, para. 47.

[123] *Ibid.*, para. 50, quoting Japan's appellant's submission, para. 128.

[124] United States' appellee's submission, para. 51.

[125] *Ibid.*, quoting Panel Report, para. 7.14.

70. Secondly, the United States challenges Japan's argument that, because its "methodology" required a risk assessment in connection with a proposal from an exporting Member, Japan was not bound to consider in the 1999 PRA any alternative measures to those already applied. The United States claims that, as the Panel noted, "nothing in the text of Article 5.1 and Annex A, paragraph 4 suggests that alternative options have to be proposed by the exporting Member."[126] Instead, the United States notes, paragraph 4 of Annex A refers to "SPS measures which might be applied". In the view of the United States, this text makes clear that it is the importing Member's obligation to consider alternative measures to those that it actually applies. In this regard, the United States draws attention to the observations by Dr. Chris Hale and Dr. Ian Smith that the 1999 PRA "appeared to prejudge the outcome of its risk assessment" and that the 1999 PRA seemed to be primarily concerned with showing that "each of the measures already in place was effective in some respect" in order to conclude that all were necessary.[127]

71. Finally, the United States takes issue with Japan's claim that it has satisfied the requirements of Article 5.1 by conducting an "informal risk assessment" on mature, symptomless apples in the course of the dispute settlement proceedings and has reached the conclusion that the latest data presented by the United States and New Zealand are "not yet sufficient" to justify a modification of the current measure.[128] Such a claim, the United States argues, reflects Japan's intention to maintain its measure even in the face of an adverse ruling and, therefore, highlights the need for the Appellate Body to make clear legal findings rejecting Japan's "spurious legal theories".[129] In this regard, the United States submits that, although the Panel correctly found that Japan failed to meet the requirements of Article 5.1, this conclusion could have been reached on a "more fundamental basis": in the United States' view, given the "close relationship" between Articles 5.1 and 2.2, and in the absence of "sufficient scientific evidence" under Article 2.2, the relationship between the measure and the risk assessment lacks the "rational" basis required in order for the former to be "based on" the latter.[130]

72. The United States therefore requests the Appellate Body to uphold the Panel's finding that Japan's measure, with respect to mature, symptomless apples, is inconsistent with Japan's obligations under Article 5.1 of the *SPS Agreement*.

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[126]United States' appellee's submission, para. 54, quoting Panel Report, para. 7.18.

[127]United States' appellee's submission, para. 55, quoting Panel Report, para. 8.289, in turn quoting *ibid*., paras. 6.177 (Dr. Hale) and 6.180 (Dr. Smith).

[128]United States' appellee's submission, para. 56, quoting Japan's appellant's submission, paras. 124 and 137.

[129]United States' appellee's submission, para. 59.

[130]*Ibid*., para. 60.

4. Article 11 of the DSU

(a) The Panel's objective assessment under Article 2.2 of the *SPS Agreement*

73. The United States understands Japan's argument under Article 11 of the DSU, with respect to the Panel's fact-finding in paragraph 8.166 of the Panel Report, to challenge those conclusions only as they apply to "immature apples".[131] The United States agrees with Japan that paragraph 8.166 of the Panel Report should not be read to apply to "infected" apple fruit, but for reasons different from those proffered by Japan.[132] The United States submits that the Panel was without authority to make any finding on "immature apples" because the United States' claims and arguments were expressly limited to "mature, symptomless" apples.[133] Nevertheless, to the extent that Japan contests the Panel's conclusions in paragraphs 8.166 and 8.168 in relation to mature apples, the United States contends that this claim is without merit.

74. The United States emphasizes that claims under Article 11 require a showing that the Panel evinced "deliberate disregard" for evidence or "refuse[d] to consider", "willfully distort[ed]", or "misrepresent[ed]" evidence.[134] In the view of the United States, Japan has failed to meet this "high standard".[135]

75. First, the United States argues that the Panel had sufficient evidentiary basis for its fact-finding in paragraph 8.166 of the Panel Report as to mature, symptomless apples. According to the United States, the Panel cited studies that had found no vector for "calyx-infested discarded apples", in addition to the experts' statements that other means of completing the pathway were unsupported by the available scientific evidence.[136] In this regard, the United States submits that Japan's allegation of a factual error in the Panel's reference to the existence of ooze as found by these studies, is "irrelevant" to the Panel's finding as to mature, symptomless apples, because ooze can occur only in "immature, infected" apples.[137]

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[131] United States' appellee's submission, para. 8.

[132] *Ibid.*, para. 14.

[133] *Ibid.*, para. 5. See also, *infra*, paras. 82 *ff*.

[134] United States' appellee's submission, para. 10, citing Appellate Body Report, *EC – Hormones*, para. 133.

[135] United States' appellee's submission, para. 10.

[136] *Ibid.*

[137] *Ibid.*, footnote 9 to para. 10.

76. Secondly, the United States argues that Japan's arguments regarding the "precautionary principle" have already been rejected by the Appellate Body in *Japan – Agricultural Products II*. According to the United States, neither the text of the *SPS Agreement* nor the "precautionary principle" compels a panel to find that a pathway for transmission of a disease exists where none of the scientific evidence on record supports that conclusion. This view, the United States claims, is supported by the Appellate Body's discussion in *EC – Hormones* of the "precautionary principle". Furthermore, the United States observes, Japan refers to the experts' statements of caution but acknowledges that "these expressions do not identify a concrete path of the dissemination of the disease".[138] Therefore, the United States concludes, the Panel properly refused to assume, on the basis of generalized statements of "caution", that the pathway could be completed where no evidence attests to that fact.

77. Finally, the United States challenges Japan's claim that the Panel considered the risk of completion of the pathway to be more than theoretical. The United States observes that the Panel employed the term "unlikely" when characterizing the experts' views on the likelihood of completion of the pathway, but claims that, in doing so, the Panel reflected the reality that science can never state with certainty that an event will never occur. In the view of the United States, this proper approach to risk analysis by the Panel should not be understood to suggest more than a theoretical risk of transmission of fire blight from apple fruit.

78. The United States therefore requests the Appellate Body to find that the Panel properly discharged its obligations under Article 11 of the DSU when finding that the last stage of the pathway for transmission of fire blight from mature, symptomless apples would not be completed.

(b) The Panel's objective assessment under Article 5.1 of the *SPS Agreement*

79. The United States claims that Japan's challenges to the Panel's fact-finding in the course of its Article 5.1 analysis are not properly before the Appellate Body. The United States argues that, in *US – Countervailing Measures on Certain EC Products*, the Appellate Body found that an appellant raising an Article 11 claim must indicate such a claim in its Notice of Appeal.[139] In the United States' view, because Japan did not identify, in its Notice of Appeal, its Article 11 claim with respect to the Panel's findings under Article 5.1, Japan has not appealed this issue in accordance with Rule 20(2)(d) of the *Working Procedures*. Therefore, the United States contends, the Appellate Body should decline to address this aspect of Japan's appeal.

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[138]United States' appellee's submission, para. 12, quoting Japan's appellant's submission, para. 67.

[139]United States' appellee's submission, footnote 88 to para. 53.

80. Should the Appellate Body proceed to consider Japan's Article 11 claim with respect to the Panel's analysis under Article 5.1, the United States argues, the Appellate Body should find that Japan has not established the sort of "egregious errors" required to find that the Panel has not fulfilled the requirements under Article 11.[140] In addition, according to the United States, Japan has not contested other "deficiencies" identified in Japan's risk assessment by the experts and accepted by the Panel.[141]

81. The United States thus requests the Appellate Body to dismiss Japan's claim that the Panel failed to satisfy its obligations under Article 11 of the DSU in the course of evaluating the United States' claim under Article 5.1 of the *SPS Agreement*. Alternatively, the United States requests the Appellate Body to find that these obligations were discharged properly by the Panel when it found that Japan's risk assessment did not evaluate adequately the likelihood of entry, establishment or spread of fire blight from apple fruit.

C. *Claim of Error by the United States – Appellant*

Claim on the "Authority" of the Panel

82. The United States argues that, because it presented claims relating only to "mature, symptomless" apples, the Panel erred in analyzing the measure with respect to products other than those identified. In particular, according to the United States, the Panel exceeded its authority by making findings related to *immature* apples and to United States export control procedures. The United States requests the Appellate Body to "reverse the Panel's legal findings and declare the Panel's statements derived from those findings to be without legal effect."[142]

83. The United States asserts that the issue presented to the Panel was "whether Japan's restrictions on mature, symptomless apples are consistent with the SPS Agreement, and not whether Japan could maintain restrictions on any other product."[143] The United States contends that it pursued this approach because it was seeking to export only mature, symptomless apples to Japan, and that it has laws and "extensive measures" to limit apple exports to apples with these characteristics.[144]

84. The United States notes that, although its claims were limited to mature apples, the Panel concluded that the measure at issue should be evaluated in the light of its applicability to *all* apple fruit, including immature apples. As a result, according to the United States, the Panel also

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[140] United States' appellee's submission, para. 53, quoting Appellate Body Report, *Japan – Agricultural Products II*, para. 141.

[141] United States' appellee's submission, para. 53, citing Panel Report, para. 8.279.

[142] United States' other appellant's submission, para. 3.

[143] *Ibid*., para. 6.

[144] *Ibid*., para. 7.

considered it appropriate to examine those issues related to "control procedures" and requirements for the exportation of apples, because such measures affect whether apples exported to Japan could include immature infected apples.[145] The United States considers as flawed the rationale provided by the Panel to justify its consideration of all apple fruit, and of United States export control procedures.

85. First, the United States contests the Panel's understanding that the reference in the United States' request for the establishment of a panel to "apples" authorizes the Panel to make findings on apples other than "mature, symptomless" apples. In particular, the United States challenges the Panel's reasoning that a request for the establishment of a panel "is not exclusively a limitation to [a panel's] jurisdiction, it defines it positively too."[146] According to this logic, the United States argues, panels may offer analysis and findings on *any* claims identified in the request for the establishment of a panel, including those not pursued by the complaining party. In the view of the United States, however, it is not the function of dispute settlement panels to conduct a *de novo* review and make findings on claims not pursued, nor is it their function to "theorize" about arguments and evidence that a complaining party *might* have advanced.[147] Moreover, the United States contends that the Panel ignored the limits of its investigative authority recognized by the Appellate Body in *Japan – Agricultural Products II*, wherein the Appellate Body explained that "this authority cannot be used by a panel to rule in favour of a complaining party which has not established a *prima facie* case *based on specific legal claims asserted by it*."[148] The United States asserts that it made no *prima facie* case with respect to immature apples, and that Japan offered no evidence that United States export control procedures would fail to ensure that only "mature, symptomless" apples were exported. In the view of the United States, therefore, the Panel had no basis to make findings *not* related to mature, symptomless apples.

86. The United States also observes that the Panel's decision to make a finding based solely on the wording of the claim in the United States' request for the establishment of a panel is inconsistent with panel practice under the current dispute settlement mechanism. The United States argues that, because panels have not made findings on abandoned claims, parties have been able to reasonably assume that claims may be abandoned through lack of argumentation. The Panel's reasoning in this case, according to the United States, "risks prejudicing one or both parties" because it "contravene[s] that assumption".[149]

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[145] United States' other appellant's submission, para. 8.

[146] *Ibid.*, para. 10, quoting Panel Report, para. 8.32.

[147] United States' other appellant's submission, para. 10.

[148] *Ibid.*, para. 11, quoting Appellate Body Report, para. 129. (emphasis added by the United States)

[149] United States' other appellant's submission, para. 13.

87. Secondly, the United States challenges the Panel's claim that it had authority to make findings related to immature apples on the basis of (i) the United States' evidence on its export control procedures and (ii) Japan's argument that the measure at issue would also address the entry of immature or infected apples due to possible lapses in those procedures. The United States contends, however, that it had made no *claim* with respect to immature apples and, as a result, the Panel had no basis to review the measure in relation to immature apples. Furthermore, in the view of the United States, Japan's concerns regarding the possible failure of United States export control procedures could not justify the Panel's finding on immature apples because the sole question before the Panel related to the consistency of Japan's measure, as applied to "mature, symptomless" apples, with Article 2.2.

88. Thirdly, the United States contends that the Panel erroneously asserted that the definition of "sanitary measure" in paragraph 1 of Annex A to the *SPS Agreement* "does not limit the scope of application of phytosanitary measures to the product that the exporting country claims to export. In order to be effective, a phytosanitary measure should cover all forms of a product that may actually be imported."[150] According to the United States, it is impossible to decide in the abstract what the requirements may be for all phytosanitary measures that a Member might maintain on any product. In any event, the United States argues, the fact that a phytosanitary measure may address risks associated with *certain* types of a product does not mean that the measure conforms to a Member's obligations under the *SPS Agreement* with respect to *all* types of a product.

89. Finally, because Japan's measure does not relate to export control procedure failures, the United States claims that the Panel's findings on immature apples cannot be justified by reference to the Appellate Body's acknowledgement in *EC – Hormones* that a risk assessment underlying a measure may consider all scientific risks, whatever their origin, including risks from export control procedure failures.

90. Therefore, as the Panel exceeded its authority , in the view of the United States, in ruling on matters beyond the scope of the dispute, the United States requests the Appellate Body to reverse the Panel's findings with respect to products other than "mature, symptomless" apples and to export control procedures, and to "declare the Panel's statements derived from those findings to be without legal effect."[151]

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[150] United States' other appellant's submission, para. 16, quoting Panel Report, para. 8.119.

[151] United States' other appellant's submission, para. 3.

D. *Arguments of Japan – Appellee*

Claim on the "Authority" of the Panel

91. Japan claims that the Panel was, not only permitted to address the issue of "infected apple fruit" on the basis of the scope of the Panel's terms of reference that cover Article 2.2 of the *SPS Agreement* and United States apples "in general", but was also obligated to do so because the issue of infected apple fruit was part of the *prima facie* case to be established by the United States.[152]

92. First, Japan disagrees with the United States' assertion that the Panel should not have addressed the issue of "immature apples" based on the fact that a panel has authority to rule only on specific claims made by the complainant.[153] Japan claims that this erroneous assertion involves two legal principles that should not be confused. The first principle, according to Japan, relates to the "scope of the dispute".[154] Japan submits that the scope of the dispute is determined by the terms of reference in the request for the establishment of a panel, such that a panel should not rule on matters not included in its terms of reference. The second principle, in Japan's view, dictates the onus on the complaining party to establish a *prima facie* case within that scope of the dispute.

93. Regarding the "scope of the dispute" in the current case, Japan observes that Article 2.2 of the *SPS Agreement* is included in the Panel's terms of reference, and the United States' request for the establishment of a panel makes reference to "US apples" generally, rather than specifically to "mature, symptomless" apple fruit. Japan submits that the Panel's discussion of infected apples under Article 2.2 thus falls well within the scope of the dispute as defined by the request for the establishment of a panel and the terms of reference. According to Japan, addressing infected apples was necessary in order for the Panel to achieve a "satisfactory settlement of the matter", as required in Article 3.4 of the DSU; the fact that the United States did not specifically mention "infected apples" does not deprive the Panel of its right to address this issue.

94. Concerning the second "principle", Japan asserts that the fact-finding authority of a panel should not be confused with the requirement of establishing a *prima facie* case. In Japan's view, establishing a *prima facie* case is a "requirement of proof" imposed on the complaining party that prevents a panel from finding facts in favour of the complaining party when that party has not asserted those facts.[155] Nevertheless, Japan argues, a panel may find facts not "asserted" by the complaining

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[152]Japan's appellee's submission, para. 2.

[153]*Ibid.*, para. 3.

[154]*Ibid.*, para. 4.

[155]*Ibid.*, para. 8.

party if those facts are "asserted" by the respondent.[156] Japan alleges that the assertion of a particular factual claim, even if proven, may not be sufficient to establish a *prima facie* case under the relevant provisions. More specifically, Japan claims, "in order to establish a *prima facie* case of insufficient scientific evidence under Article 2.2 of the SPS Agreement, the complaining party must establish that there is not sufficient scientific evidence for *any* of the perceived risks underlying the measure, or that the measure is otherwise not supported by sufficient scientific evidence."[157] Thus, in the present case, Japan argues, because the issue of "infected apples" is related to the risk addressed in Japan's phytosanitary measure, the United States should have established a *prima facie* case covering infected apples *in addition to* mature, symptomless apples.

95. Japan further argues that, although the Panel acted properly in addressing infected apple fruit, the Panel erred in shifting to Japan the burden of proof on the establishment of the risk of completion of the pathway through infected apple fruit. In Japan's view, it was the United States' burden to establish that it would ship only "mature, symptomless" apples.[158] Japan contends that, because the United States failed to discharge this burden, the only way for the United States to establish a *prima facie* case would be to prove the insufficiency of scientific evidence supporting the view that the pathway could be completed for *infected* apple fruit. According to Japan, this had not been demonstrated by the United States, and, therefore, the burden of proof should not have been shifted.

96. Japan contests the United States' claim that Japan failed to submit evidence on the inappropriateness of the "U.S. [export] control procedures".[159] Japan submits that the United States, not Japan, bore the obligation of proving the efficacy of United States export control procedures for apples. Moreover, Japan observes, it did submit evidence on the failure of United States export control procedures in one specific case, where apple fruit harbouring codling moth larvae was shipped to the Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu. Japan submits that this case is "[i]ndisputable evidence that the U.S. [export] control procedures are prone to failure and that they did fail."[160] This evidence was not contested by the experts, nor was it rebutted by the United States, even though it had "ample opportunities" to do so.[161] Notwithstanding these points, Japan argues that the United States' claim regarding the adequacy of its export control procedures raises an issue of fact already decided by the Panel, and the claim should therefore be dismissed by the Appellate Body.

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[156]Japan's appellee's submission, para. 8.

[157]*Ibid.*, para. 9. (original italics)

[158]*Ibid.*, para. 12.

[159]*Ibid.*, para. 14, quoting United States' other appellant's submission, para. 4.

[160]Japan's appellee's submission, para. 17.

[161]*Ibid.*, paras. 21-22.

97. Japan therefore requests the Appellate Body to reject the United States' appeal on the findings of the Panel under Article 2.2 of the *SPS Agreement*.

E. *Arguments of the Third Participants*

1. Australia

98. Australia agrees with Japan that the Panel misinterpreted and misapplied Article 2.2 of the *SPS Agreement* and, in doing so, erred in law in finding that Japan acted inconsistently with its obligations thereunder. Concerning the interpretation of Article 2.2, Australia considers that the Panel erred by introducing a requirement under this provision for a phytosanitary measure to be "justified" by the relevant scientific evidence, and not to be "disproportionate" to the identified risk. In Australia's view, this requirement is not supported by the text of Article 2.2 and suggests that the Panel incorporated improperly into that provision the substantive obligations set forth separately in Articles 5.1, 5.3, and 5.6. In doing so, according to Australia, the Panel undermined the negotiated balance of rights and obligations in the *SPS Agreement*.

99. Australia submits that "Article 2.2 operates to ensure that the body of available scientific evidence related to the risk addressed by the measure is adequate for an assessment of risk required under Article 5.1, but does not include a requirement for the actual measure applied by the Member to be justified by the scientifically identified risk."[162] According to Australia, to read Article 2.2 as requiring a phytosanitary measure to be "justified" by sufficient scientific evidence, as the Panel did, converts impermissibly the phrase "not maintained without sufficient scientific evidence" in Article 2.2 to the phrase "not supported by sufficient scientific evidence".[163] Instead, Australia argues, the issue of whether a phytosanitary measure is "justified" by scientific evidence should be evaluated under Articles 3 and 5 of the *SPS Agreement*.

100. Regarding the application of Article 2.2, assuming the Panel's interpretation were correct, Australia agrees with Japan that the Panel held implicitly that Japan should bear the burden of proof in establishing that the last stage of the pathway through infected fruit would be completed. Citing the Appellate Body Reports in *US – Wool Shirts and Blouses* and *Japan – Agricultural Products II*, Australia submits that the complaining party has the burden of establishing a *prima facie* case of inconsistency with Article 2.2. Although the United States could have satisfied this burden by establishing a presumption that sufficient scientific evidence did not exist, according to Australia, the Panel failed to make any assessment of whether the United States had raised the necessary

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[162] Australia's third participant's submission, para. 28.

[163] *Ibid*., para. 30.

presumption with respect to the risk from *infected* apple fruit. Australia notes that the United States made no assertion and presented no evidence on *infected* apple fruit. Therefore, Australia argues, the Panel erred in law by making findings on claims concerning apples other than mature, symptomless apples in the absence of any legal arguments or evidence brought by the United States in support of these claims. In Australia's view, "the legal effect of a reversal of the Panel's findings on apples other than mature symptomless apples must lead to the conclusion that the United States failed to make a *prima facie* case in relation to the specific legal claim on the consistency of Japan's measures under Article 2.2."[164]

101. Australia also agrees with Japan that the Panel made errors of law and interpretation with respect to Article 5.7 of the *SPS Agreement*, but "does not share Japan's views on the interpretation of Article 5.7."[165] Recalling the findings of the Appellate Body in *US – Wool Shirts and Blouses*, *EC – Hormones*, and *EC – Sardines*, Australia argues that a complaining Member bears the burden of proof in establishing a measure's inconsistency with any provision that is a "fundamental part of the rights and obligations of WTO Members".[166] In Australia's view, these cases also make clear that this burden cannot be discharged merely by characterizing the relevant provision as an "exception" because certain exceptions may nevertheless constitute a "fundamental part of the rights and obligations of WTO Members". In Australia's view, Article 5.7 of the *SPS Agreement* is such an exception because the provision establishes an importing Member's right to impose provisional phytosanitary measures, subject to certain conditions found by the Appellate Body in *Japan – Agricultural Products II*.[167] Therefore, according to Australia, Article 5.7 does not stand in a "general rule-exception" relationship with Article 2.2 that would warrant reversing the burden of proof normally placed on the complaining Member.[168]

102. Australia further submits that the Panel made several errors in its legal interpretation of Article 5.1 of the *SPS Agreement*. First, Australia agrees with Japan that the Panel erred in its interpretation of the definition of a risk assessment under Article 5.1 of the *SPS Agreement*. Australia submits that the Panel misinterpreted the requirement of "specificity" as applying to the "product at issue" in the context of the risk assessment[169], erroneously introducing a "new standard"[170] of

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[164]Australia's third participant's submission, para. 47.

[165]*Ibid.*, para. 48.

[166]*Ibid.*, para. 55, quoting Appellate Body Report, *US – Wool Shirts and Blouses*, p. 16, DSR 1997:I, 323, at 337.

[167]Australia's third participant's submission, para. 66, referring to Appellate Body Report, para. 89.

[168]Australia's third participant's submission, paras. 65 and 68, citing Appellate Body Report, *EC – Hormones*, para. 104 and Appellate Body Report, *EC – Sardines*, para. 275.

[169]Australia's third participant's submission, para. 78.

[170]*Ibid.*, para. 76.

"specificity" that is not warranted by the text of the *SPS Agreement*. In Australia's view, the Appellate Body findings in *EC – Hormones*, consequently applied by the panel in *Australia – Salmon*, discussed "specificity" in the context of requiring a risk assessment to be related to the "risk at issue", not to the "product at issue".[171] Therefore, Australia agrees with Japan that the fact that the 1999 PRA assessed the probability of transmission by more than one vector is not a sufficient basis *alone* for determining that Japan did not assess properly the probability of transmission of fire blight through apple fruit.

103. Secondly, Australia submits that the Panel "mistakenly"[172] relied on the phrase "as appropriate to the circumstances" in Article 5.1 as context when interpreting "measures which might be applied" in paragraph 4 of Annex A to the *SPS Agreement*. According to Australia, whatever flexibility may be afforded an importing Member in the conduct of its risk assessment by the phrase "as appropriate to the circumstances", such flexibility cannot be interpreted to "annul or supersede the substantive requirements for a valid risk assessment."[173]

104. Thirdly, Australia submits that there is no legal or textual basis to impose a requirement on a Member to update its completed risk assessment every time new scientific evidence becomes available or existing evidence is challenged. In Australia's view, the obligation under Article 5.1 for a Member to ensure that its "measures are based on an assessment … of risks" is a constant and objective requirement, which may be assessed by the Panel at the time of its inquiry. However, concerning the conditions for a "risk assessment" under the *SPS Agreement*, as identified by the Appellate Body in *Australia – Salmon*, Australia argues that once a risk assessment has met these conditions, its validity is not subject to ongoing review.[174] Thus, in Australia's view, new scientific evidence is relevant under Article 5.1 for the purpose of determining whether a rational relationship exists between the measure and the risk assessment, but not for determining whether a particular risk assessment continues to satisfy the definition of a "risk assessment" in Annex A to the *SPS Agreement*. In the light of the Panel's errors in interpreting Article 5.1, Australia supports Japan's request to reverse the Panel's findings accordingly.

105. Australia additionally claims that, with respect to the Panel's failure to make an "objective assessment of the matter" before it, as required under Article 11 of the DSU, Japan's allegations "have merit and deserve close attention".[175] In particular, Australia agrees with Japan's allegation that the

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[171] Australia's third participant's submission, para. 77.

[172] *Ibid.*, para. 82.

[173] *Ibid.*, para. 83.

[174] *Ibid.*, para. 86.

[175] *Ibid.*, para. 92.

Panel failed to make an objective assessment in its analysis under Article 5.1 because it failed to consider all relevant evidence before it. In Australia's view, despite the fact that the Panel indicated that it would consider other materials *in addition to* the 1999 PRA, the Panel does not appear to have gone beyond the 1999 PRA in its examination of evidence. Australia submits that the "Panel's decision to rely heavily on one piece of evidence in its Report, and not to refer to all relevant evidence in its analysis, is a violation of Article 11."[176] Moreover, Australia asserts, the Panel failed to meet the criteria for an objective assessment described in previous Appellate Body Reports because of its failure to provide "adequate reasoning" to support its findings.[177]

2. Brazil

106. Brazil agrees with the interpretation given by the Panel to Article 5.7 and its conclusion that the measure at issue did not satisfy the first requirement of Article 5.7, namely that this be a case "where relevant scientific evidence is insufficient".

3. European Communities

107. The European Communities agrees with the United States that the Panel should have refrained from making findings with respect to "immature, possibly infected apples"[178], on which the United States had not made any claim. The European Communities asserts, however, that the Panel's error should not affect merely the *scope* of the Panel's findings, but rather the Panel's findings on the merits of the case. The European Communities contends that, in the absence of a *prima facie* case made out by the United States, which required the production of evidence related to *all* apples, the Panel should have reached the conclusion that the United States had failed to prove the incompatibility of the measure at issue with the *SPS Agreement*.

108. The European Communities argues that the Panel should have begun its analysis by focusing on the risk sought to be addressed by the measure at issue. Instead, in the European Communities' view, the Panel erroneously concluded that it was relevant to differentiate between the risks related to mature and apparently healthy apple fruit, and those related to other apples. By drawing this distinction and analyzing separately the case of apples other than mature, symptomless apples, the European Communities submits, the Panel "made a case for the complainant".[179] According to the European Communities, the United States had argued that mature, symptomless apple fruit represents no risk of fire blight transmission and hence presented a *prima facie* case only for this particular type

[176]Australia's third participant's submission, para. 98. (footnotes omitted)

[177]*Ibid.*, para. 98.

[178]European Communities' third participant's submission, para. 4.

[179]*Ibid.*, para. 10.

of apple, not for any other. The European Communities emphasizes that if the premise assumed in any analysis of a phytosanitary measure is that only "hazard-free goods" are exported, then no domestic measure will ever be found to be consistent with the *SPS Agreement*.[180] The European Communities argues that if a complainant desires to base its claim on the fact that it exports solely "hazard-free goods", it should bear the burden of presenting "convincing evidence showing that there is no possibility of fraud or negligence or accident", particularly when there are large volumes of exports of that commodity.[181]

109. Therefore, the European Communities submits that the United States should have established a *prima facie* case showing that Japan's measure was not necessary or was disproportionate, including with respect to the importation of *infected* fruit. Alternatively, the European Communities contends, the United States should have provided evidence establishing that *only non-infected* fruit would be exported. Because the United States failed to make any claim or submit any evidence in this respect, and as the Panel found on the basis of the experts' advice that there may be errors of handling or illegal actions, the European Communities agrees with Japan that the Panel should have concluded that the United States failed to make a *prima facie* case on the inconsistency of the measure at issue with the *SPS Agreement.*

110. The European Communities further disagrees with the Panel's allocation of the burden of proof under Article 2.2. In the European Communities' view, once the Panel found that the scientific evidence was not sufficient to justify the measure as applied to "mature, symptomless apples"[182], it allocated improperly to Japan the burden of proof as regards the risk of completion of the pathway in *immature, infected* apple fruit, for which the United States had submitted no evidence at all. Because the United States had not made a *prima facie* case with respect to apples other than mature, symptomless apples, according to the European Communities, the Panel erred in prematurely shifting the burden of proof to Japan.

111. With respect to the Panel's analysis under Article 5.7 of the *SPS Agreement*, the European Communities argues that the Panel erred in treating Article 5.7 as an "affirmative defence to a violation of Article 2.2" and in its interpretation of the term "insufficient".[183] Citing the Appellate Body Report in *EC – Hormones*, the European Communities argues that Article 5.7 is not, by its nature, an exception, despite the phrase "except as provided in Article 5.7" at the end of

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[180] European Communities' third participant's submission, para. 11.

[181] *Ibid*.

[182] *Ibid*., para. 16.

[183] *Ibid*., paras. 14 and 21.

Article 2.2.[184] The European Communities submits that Article 5.7 contains its own set of obligations and that it creates an "autonomous right" to take provisional measures.[185] The European Communities claims that the autonomous nature of this right is confirmed in *Japan – Agricultural Products II*, wherein the Appellate Body explained how a measure may be inconsistent with Article 5.7 in and of itself. Accordingly, in the European Communities' view, it is for the *complaining* party to demonstrate an inconsistency with Article 5.7. Therefore, the European Communities contends that the Panel erred with respect to the allocation of the burden of proof under Article 5.7.

112. As to the Panel's interpretation of Article 5.7, the European Communities argues that the phrase "[i]n cases where relevant scientific evidence is insufficient" refers to precise occurrences rather than general phenomena. As a result, the European Communities submits that the application of provisional measures under Article 5.7 is permissible in situations where there is insufficient scientific evidence on a "specific issue" that is "key" to defining the nature or extent of a risk, despite the existence of "general information on a given subject".[186] Moreover, the European Communities contends, the term "insufficient evidence" can cover evidence that is "incomplete" or "unconvincing", even if there is a large volume of such evidence.[187] In this regard, the European Communities argues, the sufficiency of the evidence may change over time, for example, as new research casts doubt on the correctness of previously sufficient studies. Thus, according to the European Communities, the Panel erred by interpreting "insufficient evidence" narrowly so as to examine the sufficiency of existing evidence solely on a quantitative rather than a qualitative basis.

4. New Zealand

113. New Zealand agrees with the United States that the Panel should not have made findings with respect to immature apples. In New Zealand's view, the United States' claims were related to the WTO-consistency of Japan's measure as that measure applied to *mature* apples, not to other products, such as immature apples. New Zealand asserts that the Panel acted contrary to "established WTO jurisprudence regarding the burden of proof" because it made findings as to issues on which a *prima facie* case was not established by the complaining party.[188] Accordingly, New Zealand

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[184]*See* European Communities' third participant's submission, para. 22, citing Appellate Body Report, para. 104.

[185]European Communities' third participant's submission, para. 24.

[186]*Ibid.*, para. 32.

[187]*Ibid.*, para. 33.

[188]New Zealand's third participant's submission, para. 3.35.

submits that the Appellate Body should reverse the Panel's legal findings in respect of immature apple fruit and "declare the Panel's statements derived from those findings to be without legal effect." [189]

114. As to the interpretation of Article 2.2, New Zealand contests Japan's claim that Article 2.2 should be understood to "allow a certain degree of discretion ... on the part of an importing member to determine the value of the evidence to it and to introduce a particular measure thereon." [190] New Zealand argues that Article 2.2 provides no basis for such a "certain degree of discretion". Instead, according to New Zealand, Article 2.2 requires a rational or objective relationship between the phytosanitary measure and the scientific evidence, and an importing Member's method of evaluating scientific evidence must necessarily be consistent with this requirement of rationality. In New Zealand's view, the "logical conclusion" of Japan's argument is that importing Members would be permitted to accord little weight to relevant scientific evidence and thereby impose phytosanitary measures that have no rational relationship with such evidence. [191]

115. With respect to the United States' *prima facie* case under Article 2.2 for mature apples, New Zealand argues that Japan has failed to establish an error in the Panel's analysis. First, New Zealand rejects as a basis for error Japan's claim that the Panel evaluated improperly the scientific evidence on the basis of the experts' statements rather than of the views of the importing Member in this case. Not only did the Panel discount the value of the evidence cited by Japan, New Zealand claims, but Japan's reasoning would preclude panels from ever considering scientific evidence that contradicts the views of the importing Member. Such subjectivity accorded an importing Member, in the view of New Zealand, is inconsistent with the objective relationship that must exist between the phytosanitary measure and the scientific evidence under Article 2.2.

116. Secondly, New Zealand disagrees with Japan's claim that the United States failed to establish the absence of scientific evidence on material aspects of the risk sought to be addressed by Japan. New Zealand claims that Japan "mischaracterises" the criteria set out by the Panel for a *prima facie* case to be made by the United States. [192] New Zealand states that the Panel, after rejecting Japan's claim that the United States was required to prove positively the insufficiency of the scientific evidence, relied on the Appellate Body Report in *Japan – Agricultural Products II* to find that a *prima facie* case would be made where the United States had raised a *presumption* that sufficient scientific evidence did not exist. Once the Panel found that the presumption had been raised,

[189] New Zealand's third participant's submission, para. 3.36.

[190] *Ibid.*, para. 3.09, quoting Japan's appellant's submission, para. 76.

[191] New Zealand's third participant's submission, para. 3.10.

[192] *Ibid.*, para. 3.16.

New Zealand argues, the Panel weighed the evidence before it and found that Japan had not rebutted the presumption. Therefore, in New Zealand's view, the Panel properly found that a *prima facie* case had been made by the United States on its claim in respect of mature apples under Article 2.2.

117. New Zealand agrees with the Panel's analysis relating to Article 5.7 of the *SPS Agreement*, because the Panel found that the "wealth of scientific evidence"—either "in general" *or* in relation to specific aspects of the risk—demonstrates that the issue of the risk of transmission of fire blight through mature apple fruit is not one upon which there is insufficient relevant scientific evidence as required under Article 5.7.[193] In New Zealand's view, therefore, Japan is incorrect to suggest that the Panel failed to consider the sufficiency of scientific evidence as to the particular elements of the risk at issue. Moreover, concerning Japan's argument that the elimination of the measure would create "new uncertainty", New Zealand submits that this dispute is concerned with the measure at issue, not with measures that may be in place in hypothetical circumstances at some point in the future. As such, the possible uncertainty created by the development of a *new* phytosanitary measure cannot be relied upon to cure the WTO-inconsistency of the *existing* measure.

118. New Zealand further submits that the Panel's findings in relation to Article 5.1 of the *SPS Agreement* are correct and should be upheld. New Zealand agrees with the Panel that Japan's risk assessment was not sufficiently specific to the matter at issue. In New Zealand's view, the evaluation of the likelihood of entry, establishment and spread of the disease specifically from mature apple fruit is more than an issue of procedure or methodology, as Japan alleges, but a "substantive requirement" of Article 5.1.[194] This requirement, according to New Zealand, does not prevent an importing Member's selection of methodology for conducting its risk assessment, nor does it prevent importing Members from considering several possible hosts simultaneously, provided that a conclusion as to the risk is drawn with respect to the *particular commodity* at issue.

119. New Zealand also contests Japan's claim that it has conducted an appropriate risk assessment "in the course of this proceeding".[195] New Zealand finds it "astonishing" that Japan "essentially" asks the Appellate Body to find that, on the basis of evidence and arguments advanced by Japan in this dispute, Japan has conducted an "informal" risk assessment that satisfies the standard required by the *SPS Agreement*.[196] In New Zealand's view, the requirement under Article 5.1 of basing measures on a

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[193]New Zealand's third participant's submission, para. 3.19.

[194]*Ibid.*, para. 3.30.

[195]*Ibid.*, para. 3.25, quoting Japan's appellant's submission, para. 124.

[196]New Zealand's third participant's submission, para. 3.27.

risk assessment would be rendered "devoid of any meaning" because, according to Japan's rationale, an importing Member could avoid conducting a risk assessment until challenged in a dispute settlement proceeding, at which point a "*post facto* risk assessment" would be found to satisfy Article 5.1.[197] Accordingly, New Zealand requests the Appellate Body to uphold the Panel's findings under Article 5.1 of the *SPS Agreement*.

IV. Preliminary Issue: Sufficiency of the Notice of Appeal

120. We begin our analysis of this appeal with a preliminary issue related to the sufficiency of the Notice of Appeal filed by Japan.[198] In its appellee's submission, the United States argues that Japan's claim under Article 11 of the DSU, as it relates to the Panel's findings under Article 5.1 of the *SPS Agreement*, is not properly before us and requests that we dismiss this aspect of the appeal.[199] According to the United States, Japan did not properly raise this Article 11 claim in its Notice of Appeal, as required by Rule 20(2)(d) of the *Working Procedures* and in the light of the Appellate Body's decision in *US – Countervailing Measures on Certain EC Products*. As a result, the United States asserts, it did not receive the requisite notice of this issue on appeal.

121. Rule 20(2) of the *Working Procedures* sets forth the "information" that must be contained in a Notice of Appeal:

> *Commencement of Appeal*
>
> …
>
> A Notice of Appeal shall include the following information:
>
> (a) the title of the panel report under appeal;
>
> (b) the name of the party to the dispute filing the Notice of Appeal;
>
> (c) the service address, telephone and facsimile numbers of the party to the dispute; and
>
> (d) a brief statement of the nature of the appeal, including the allegations of errors in the issues of law covered in the panel report and legal interpretations developed by the panel.

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[197] New Zealand's third participant's submission, para. 3.28.

[198] WT/DS245/5, *supra*, footnote 8, attached as Annex 1 to this Report.

[199] United States' appellee's submission, para. 53 and footnote 88 thereto.

The Appellate Body recognized, in *US – Countervailing Measures on Certain EC Products*:

> … the important balance that must be maintained between the right of Members to exercise the right of appeal meaningfully and effectively, and the right of appellees to receive notice through the Notice of Appeal of the findings under appeal, so that they may exercise their right of defence effectively.[200]

The Appellate Body observed in that case that the requirements identified in Rule 20(2) for inclusion in a Notice of Appeal "serve to ensure that the appellee also receives notice, albeit brief, of the 'nature of the appeal' and the 'allegations of errors' by the panel."[201] Thus, an evaluation of the sufficiency of a Notice of Appeal must examine whether the appellee received notice therein of the issues to be argued on appeal.

122. In *US – Countervailing Measures on Certain EC Products*, the Appellate Body considered an appellee's challenge to the sufficiency of a Notice of Appeal on the basis that, *inter alia*, the Notice of Appeal had not provided the appellee with the requisite notice of the appellant's claim under Article 11 of the DSU. The appellant had alleged in its written and oral submissions that the Panel had failed to make an "objective assessment of the matter before it", as required by Article 11.[202] When considering whether the appellee had been given notice of the Article 11 challenge, the Appellate Body reviewed the Notice of Appeal and observed as follows:

> We do not find any explicit reference to Article 11 of the DSU, or to the language of Article 11 in the Notice of Appeal, or in the attachment to the letter of 13 September 2002. Nor can we discern in either of them any suggestion that the United States was alleging that the Panel failed to make an objective assessment of the matter before it, or an objective assessment of the facts of the case.[203]

123. The Appellate Body rejected in that case the appellant's submission that its Article 11 challenge was merely an *argument* supporting the broader *claim* raised on appeal with respect to other WTO provisions and that, therefore, no further clarification was required in the Notice of Appeal.[204] In doing so, the Appellate Body acknowledged that claims on appeal under Article 11 of the DSU are unique when compared with other claims of legal error committed by a panel:

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[200]Appellate Body Report, para. 62.

[201]Appellate Body Report, *US – Countervailing Measures on Certain EC Products*, para. 62.

[202]*Ibid.*, paras. 27 and 73.

[203]*Ibid.*, para. 72.

[204]*Ibid.*, paras. 73-74.

> A *claim* of error by a panel under Article 11 of the DSU is possible only in the context of an appeal. By definition, this *claim* will not be found in requests for establishment of a panel, and panels therefore will not have referred to it in panel reports. Accordingly, if appellants intend to argue that issue on appeal, they must refer to it in Notices of Appeal in a way that will enable appellees to discern it and know the case they have to meet.[205] (original italics)

Therefore, the Appellate Body concluded that the appellee could not have had notice that the appellant intended to challenge the consistency of the panel's evaluation with its obligations under Article 11, and that the appellant sought to have the Appellate Body rule on that matter.[206]

124. We likewise examine in this case the Notice of Appeal filed by Japan to evaluate whether the United States was on notice that Japan would make claims on appeal under Article 11 of the DSU. Japan claims to have raised on appeal two separate challenges under Article 11 of the DSU: one with respect to the Panel's evaluation of the United States' claim under Article 2.2 of the *SPS Agreement*, and one with respect to the Panel's evaluation of the United States' claim under Article 5.1 of that agreement.[207] Japan's Notice of Appeal identifies, in relevant part, the following alleged legal errors as issues on appeal:

> 1. The Panel erred in law in finding that Japan acted inconsistently with its obligations under Article 2.2 of the SPS Agreement. This finding reflects the Panel's erroneous interpretation of the rule of burden of proof, and the Panel's failure to make an objective assessment of the matter before it under Article 11 of the DSU.
>
> …
>
> 3. The Panel erred in law in finding that Japan's phytosanitary measure was not based on a risk assessment within the meaning of Article 5.1 of the SPS Agreement. This finding is based on an erroneous interpretation of the requirements of a risk assessment under Article 5.1.

125. Japan's intention to contest the Panel's analysis *under Article 2.2* as inconsistent with the requirements of Article 11 of the DSU is set out clearly and unambiguously. As to the Panel's analysis *under Article 5.1*, however, we note the conspicuous absence of any reference to Article 11 of the DSU, or to the standard of "objective assessment" established in that provision. Indeed, we find in the Notice of Appeal no reference to Article 11 or to the "objective assessment" standard set out therein other than in the context of Article 2.2, quoted above.

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[205] Appellate Body Report, *US – Countervailing Measures on Certain EC Products*, para. 74.

[206] *Ibid.*, para. 75.

[207] Japan's appellant's submission, paras. 47-70 (Article 2.2) and paras. 130-132 (Article 5.1).

126. By referring to the Panel's alleged failure to comply with Article 11 of the DSU only in the context of Article 2.2, Japan did not enable the United States to "know the case [it had] to meet" [208] as to the Article 11 claim related to Article 5.1 of the *SPS Agreement*. The Appellate Body has consistently emphasized that due process requires that a Notice of Appeal place an appellee on notice of the issues raised on appeal. [209] It is this concern with due process, reflected in Rule 20 of the *Working Procedures*, that underlay the Appellate Body's ruling on the sufficiency of the Notice of Appeal in *US – Countervailing Measures on Certain EC Products*.

127. Japan acknowledged during the oral hearing that it did not give the United States notice of its Article 11 claim specifically with respect to the Panel's analysis under Article 5.1 of the *SPS Agreement*. [210] Japan claimed, however, that "since we raised the claim under Article 5.1 of the *SPS Agreement*, this naturally involved some factual issues and ... we can assume that the United States was notified" as to the related Article 11 claim. [211] We disagree. As noted above [212], the Appellate Body determined in *US – Countervailing Measures on Certain EC Products* that Article 11 claims are distinct from those raised under substantive provisions of other covered agreements. It follows from this distinction that notice of an Article 11 challenge cannot be "assumed" merely because there is a challenge to a panel's analysis of a substantive provision of a WTO agreement. Rather, an Article 11 claim constitutes a "separate 'allegation of error' " [213] that must be included in a Notice of Appeal. We therefore reject Japan's assertion that an Article 11 challenge is only a "legal argument" underlying the issues raised on appeal. [214]

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[208] Appellate Body Report, *US – Countervailing Measures on Certain EC Products*, para. 74.

[209] For example, Appellate Body Report, *US – Offset Act (Byrd Amendment)*, para. 195; Appellate Body Report, *US – Countervailing Measures on Certain EC Products*, para. 62; Appellate Body Report, *EC – Bananas III*, para. 152; and Appellate Body Report, *US – Shrimp*, para. 97.

[210] Japan's response to questioning at the oral hearing.

[211] *Ibid*.

[212] *Supra*, para. 123, quoting Appellate Body Report, *US – Countervailing Measures on Certain EC Products*, para. 74.

[213] Appellate Body Report, *Chile – Price Band System*, para. 182, quoting Rule 20(2)(d) of the *Working Procedures*. In this respect, we note the distinction between *claims* and *arguments* in the context of determining whether claims have been properly identified in the request for the establishment of a panel (Appellate Body Report, *EC – Bananas III*, paras. 141-143; Appellate Body Report, *EC – Hormones*, para. 156), and we affirm the Appellate Body's observation in *Chile – Price Band System* that "this distinction between claims and legal arguments under Article 6.2 of the DSU is also relevant to the distinction between 'allegations of error' and legal arguments as contemplated by Rule 20 of the *Working Procedures*." (Appellate Body Report, para. 182)

[214] Japan's response to questioning at the oral hearing. As discussed, *supra*, at paragraph 123, the Appellate Body rejected a similar contention by the appellant in *US – Countervailing Measures on Certain EC Products*. (Appellate Body Report, paras. 73-74) The Appellate Body made a similar observation in *US – Steel Safeguards*. (Appellate Body Report, para. 498)

128. Under these circumstances, we agree with the United States that it could not have been on notice that Japan intended to raise an Article 11 challenge to the Panel's evaluation of the United States' Article 5.1 claim. Accordingly, we find that the issue of the Panel's compliance with Article 11 of the DSU, with respect to its analysis of the United States' claim under Article 5.1 of the *SPS Agreement*, is not properly before us in this appeal. Consequently, we do not rule on this issue.[215]

V. Issues Raised in This Appeal

129. Japan raises the following four claims, namely, that the Panel:

(i) erred in finding that Japan's phytosanitary measure is "maintained without sufficient scientific evidence" and is therefore inconsistent with Japan's obligations under Article 2.2 of the *SPS Agreement*;

(ii) erred in finding that Japan's phytosanitary measure is not a provisional measure under Article 5.7 because the measure was not imposed in respect of a situation where "relevant scientific evidence is insufficient";

(iii) erred in finding that Japan's phytosanitary measure was not based on a risk assessment, as defined in Annex A to the *SPS Agreement*, and as required by Article 5.1 thereof; and

(iv) failed to comply with its duty under Article 11 of the DSU because it did not conduct an "objective assessment of the facts of the case".

130. In addition to Japan's claims on appeal, the United States cross-appeals the Panel Report, claiming that the Panel did not have the "authority" to make findings and draw conclusions with respect to *immature* apples because the United States had limited its claims before the Panel to *mature* apples.

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[215] Japan's allegations under Article 11 of the DSU, as they relate to the Panel's analysis of Article 2.2 of the *SPS Agreement*, are addressed *infra*, at paragraphs 217-242.

VI. Claim on the "Authority" of the Panel

131. It is convenient to begin our analysis of the issues raised on appeal with the question of the "authority" of the Panel raised by the United States.[216] In the course of its analysis of whether Japan's measure is "maintained without sufficient scientific evidence" within the meaning of Article 2.2 of the *SPS Agreement*, the Panel sought to evaluate the risk that apple fruit exported by the United States would serve as a pathway for the entry, establishment and spread of fire blight in Japan. Although the United States claims that it exports only mature, symptomless apples to Japan, the Panel did not limit its examination to the risk related to mature, symptomless apples; it also considered the risk associated with apples other than mature, symptomless apple fruit. It did so because Japan had argued that apples other than mature, symptomless apples could be imported as a result of human or technical error, or illegal actions, and the Panel thought that such risks could be "legitimately considered" by Japan.[217] Thus, the Panel concluded that it was entitled to address Japan's assertion that a risk of introduction of fire blight in Japan "could result from a malfunction in the sorting of apples or [from] illegal action in the country of exportation",[218] and rejected the proposition that it should limit its findings to mature, symptomless apples simply because "the United States apparently limits its claims, arguments and evidence to [such apples]."[219]

132. The United States contends on appeal that the Panel had no authority to make findings and draw conclusions with respect to "immature apples" because the United States advanced no claim regarding such apples.[220] In support of its assertion that a panel cannot rule on a claim that has not been put forward by the complainant, the United States relies on the Appellate Body Report in *Japan – Agricultural Products II*, where the Appellate Body stated that a panel cannot use its investigative authority "to rule in favour of a complaining party which has not established a *prima facie* case [of inconsistency] *based on specific legal claims asserted by it*."[221] The United States explains that it

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[216]We note that the United States argues that a panel cannot "offer analysis and findings" on a claim that was not pursued by the complainant, even though the claim was initially raised in a panel request. (United States' other appellant's submission, para. 10) In other words, the United States contends that a panel does not have the "authority" to make findings and draw conclusions on such a claim. (*Ibid.*) In response to questioning at the oral hearing, the United States indicated that it had not specifically made a "terms of reference claim". We understand from the submissions of the United States that it does not challenge on appeal the "jurisdiction" of the Panel, as defined by the terms of reference, to make findings and draw conclusions on apples exported from the United States to Japan; rather, the United States contends that the Panel did not have the "authority" to make findings and draw conclusions with respect to a claim that the United States did not pursue, that is, a claim relating to apples other than mature, symptomless ones.

[217]Panel Report, paras. 8.85, 8.121, and 8.174.

[218]*Ibid.*, para. 7.31.

[219]*Ibid.*

[220]United States' other appellant's submission, paras. 3 and 15.

[221]*Ibid.*, para. 11, quoting Appellate Body Report, para. 129. (emphasis added by the United States)

exports only mature, symptomless apples to Japan and that it has both laws and extensive measures in place to limit apple exports to mature, symptomless apple fruit.[222] The United States observes that Japan offered no evidence, nor did the record otherwise contain any evidence, of the failure or likelihood of failure of United States procedures to ensure compliance with United States control requirements prohibiting the exportation of apples other than mature, symptomless apple fruit. The United States further notes that the measure under challenge in this appeal includes no such control requirements.[223]

133. In evaluating the "authority" of the Panel to make findings and draw conclusions with respect to all apple fruit, including immature apples, we turn first to the Panel's terms of reference. A panel's terms of reference perform a fundamental function as they "establish the jurisdiction of the panel"[224] and "define the scope of the dispute".[225] In the present case, the terms of reference of the Panel include the following :

> In accordance with Article 7.1 of the DSU, the terms of reference of the Panel are the following:
>
> "To examine, in the light of the relevant provisions of the covered agreements cited by the United States in document WT/DS245/2, the matter referred to the DSB by the United States in that document and to make such findings as will assist the DSB in making the recommendations or in giving the rulings provided for in those agreements."[226]

Document WT/DS245/2, referred to therein, is the request of the United States for the establishment of a panel. That request refers to "measures restricting the importation of US apples in connection with fire blight or the fire blight disease-causing organism, *Erwinia amylovora*". The request then lists the restrictions with which the United States is concerned. We note, first, that those restrictions are applicable to apple fruit produced in the United States for exportation to Japan; their scope is not restricted to mature, symptomless apples. Secondly, the United States' request refers to "US apples", an expression that in our opinion is broader than mature, symptomless apples. For these two reasons, we are of the view that the terms of reference did not limit the Panel to making findings and drawing conclusions with respect to mature, symptomless apples.

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[222]United States' other appellant's submission, para. 7.

[223]*Ibid.*, para. 12.

[224]Appellate Body Report, *Brazil – Desiccated Coconut*, p. 22, DSR 1997:I, 167, at 186.

[225]Appellate Body Report, *US – Carbon Steel*, para. 126.

[226]WT/DS245/3, *supra*, footnote 3, para. 2.

134. We examine next the United States' argument that the Panel had no authority to make findings and draw conclusions with respect to immature apples, because the United States had made no claim regarding immature apples. We are not persuaded by this argument. Before the Panel, the United States claimed that Japan maintains "measures restricting the importation of US apples in connection with fire blight or the fire blight disease-causing organism, *Erwinia amylovora*", and that "[t]hese measures appear to be inconsistent with the commitments and obligations of Japan under Article[] 2.2 … of the *Agreement on the Application of Sanitary and Phytosanitary Measures* (SPS Agreement)."[227] In seeking to establish its claim, the United States put forward arguments and allegations of fact only with respect to mature, symptomless apples. For its part, Japan argued, among other things, that despite controls established by exporting countries, apples other than mature, symptomless apples could be exported to Japan as a result of human or technical errors or illegal actions, and that such apples could serve as a pathway for fire blight.[228] In other words, even though a country seeks to export only mature, symptomless apples, there is a risk that apples other than mature, symptomless apples will be exported to Japan, be infected, and transmit fire blight to Japanese host plants.

135. The Panel determined that it was "legitimate to consider"[229] the arguments and allegations of fact regarding apples other than mature, symptomless apples put forward by Japan in response to the claim pursued by the United States under Article 2.2. We agree with the Panel. A panel has the authority to make findings and draw conclusions on arguments and allegations of fact that are made by the respondent and *relevant* to a claim pursued by the complainant. The Panel's findings and conclusions with respect to apples other than mature, symptomless apples were in response to the arguments and allegations of fact that were "legitimately" raised by Japan. Therefore, when the Panel made findings and drew conclusions on apples other than mature, symptomless apple fruit, it duly acted within the limits of its authority.[230]

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[227]WT/DS245/2, *supra*, footnote 2.

[228]Panel Report, para. 8.28.

[229]*Ibid.*, para. 8.121.

[230]In support of the argument that the Panel had no authority to make findings and draw conclusions with respect to immature apples, the United States relies on the finding of the Appellate Body in *Japan – Agricultural Products II* that a panel should not use its investigative authority "to rule in favour of a complaining party which has not established a *prima facie* case of inconsistency based on specific legal claims asserted by it." (Appellate Body Report, para. 129) The United States' reliance on *Japan – Agricultural Products II* is misplaced, for the facts and circumstances that led to the Appellate Body's finding are not the same as those present here. In *Japan – Agricultural Products II*, the Appellate Body found fault with the panel's reliance on expert evidence to rule in favour of the complainant in the absence of a case established by the complainant itself. The circumstances in the present case differ from those present in *Japan – Agricultural Products II*. Indeed, in the present case, the Panel made findings and drew conclusions on apples other than mature, symptomless apples in response to Japan's case.

136. In making this finding, we do not suggest that a panel should rule on claims that are not before it; nor do we disagree with the United States that a party may abandon claims in the course of dispute settlement proceedings. In other words, we see nothing wrong with the United States restricting the scope of its claim subsequent to the issuance of the terms of reference or at any other stage of the proceedings. Undoubtedly, a party has the prerogative to pursue whatever legal strategy it wishes in conducting its case. However, that strategy must not curtail the right of other parties to pursue strategies of their own; nor can the strategic choices of the parties impose a straightjacket on a panel. A respondent is entitled to answer the complainant's case and is not confined to addressing the specific facts and arguments put forward by the complainant, provided that the response is *relevant* to the issues in dispute. Also, a panel is entitled to consider such facts and arguments, provided that it does not exceed its terms of reference. The Panel in this case considered relevant Japan's arguments relating to apples other than mature, symptomless apples, and nothing in the terms of reference prevented the Panel from addressing them. In doing so, the Panel did not rule on a claim that was not before it; rather, it ruled on the very claim it was mandated to address.

137. The United States points to the absence of evidence on the failure or likelihood of failure of United States' procedures to ensure compliance with United States control requirements prohibiting the exportation of apples other than mature, symptomless apple fruit.[231] According to the United States, the Panel "undertook an analysis of U.S. procedures … based on a record devoid of evidence on those procedures."[232] The United States also appears to suggest that, in the absence of evidence on United States' export control procedures, the Panel was not entitled to conclude that it was legitimate to consider the risks inherent in errors in sorting apples, or of illegal actions, which might lead to the importation into Japan of contaminated apples.[233]

138. We are not persuaded by this argument. We point out first that, contrary to what the United States contends, the Panel did not "undert[ake] an analysis" of the United States' export control procedures. The subject matter of the Panel's analysis was the risk of transmission of fire blight through apple fruit. The Panel carried out this analysis in order to evaluate whether Japan's measure is "maintained without sufficient scientific evidence" within the meaning of Article 2.2 of the *SPS Agreement*. Japan had argued, in connection with the question of risk of transmission of fire blight through apple fruit, that it must protect itself against failures in control systems of exporting countries that could lead to the introduction of contaminated apples.[234] In making this argument,

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[231]United States' other appellant's submission, para. 12.

[232]*Ibid.*

[233]*Ibid.*, para. 17; Panel Report, paras. 8.121 and 8.161.

[234]Panel Report, para. 8.85(d).

Japan referred to export control systems in general, not the specific export control system of the United States. To substantiate the argument, Japan referred to opinions of the experts and to a case of export control failure that occurred in November 2002, involving codling moth larvae found in apples shipped from the state of Washington to the Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu.[235] After reviewing Japan's argument, the Panel found that errors of handling or illegal actions were risks that could, in principle, legitimately be considered by Japan[236] and, consequently, the Panel included these risks in the scope of the analysis.[237]

139. Secondly, we note that, in justifying the finding that errors of handling or illegal actions may legitimately be considered, the Panel also referred to opinions of the experts.[238] Therefore, the United States' allegation that the Panel made its finding in the absence of evidence is incorrect.

140. Furthermore, contrary to what the United States suggests, we consider that, in any event, the Panel did not need specific evidence of failure or likelihood of failure of United States export control procedures to conclude that errors of handling or illegal actions are risks that may legitimately be considered. The Panel's determination does not relate to the *specific* export control procedures of the United States and does not stem from an assessment by the Panel of such specific procedures. Instead, the Panel's conclusion applies *in general* to errors of handling and illegal actions; it is based on views on the nature of these risks and, in particular, on the opinion of one of the experts that, in plant quarantine, inspections are rarely 100 percent efficient.[239]

141. Finally, we note that the Panel did not examine the risk of errors of handling or illegal actions *in general* for the purpose of assessing the reliability of the United States' export control procedures or of determining whether apples other than mature, symptomless apple fruit were actually exported from the United States to Japan. The examination by the Panel of the risk of errors of handling or illegal actions *in general* had a more limited objective—that of appreciating the relevance of Japan's allegations on apples other than mature, symptomless apple fruit.

[235]Panel Report, para. 4.191.

[236]*Ibid.*, para. 8.161.

[237]*Ibid.*, para. 8.121.

[238]*Ibid.*, paras. 8.160-8.161, citing *ibid.*, paras. 6.15 and 6.71, and paras. 263, 266, 303, 327, 398, and 431 of Annex 3 thereto.

[239]*Ibid.*, para. 8.160. The Panel refers to a comment made by Dr. Ian Smith, one of the experts retained by the Panel. We note that, in response to questioning at the oral hearing, the United States acknowledged that the conclusion in paragraph 8.161 of the Panel Report that errors of handling or illegal actions are risks that may be legitimately considered is a "general statement" which refers to the efficiency of export control procedures in general, not to the specific export control procedures of the United States.

142. In the light of these considerations, we find that, contrary to the United States' claim, the Panel had the "authority" to make findings and draw conclusions with respect to all apple fruit from the United States, including immature apples.

VII. Article 2.2 of the *SPS Agreement*

143. We proceed next to Japan's claim that the Panel erred in finding that the measure is maintained "without sufficient scientific evidence" within the meaning of Article 2.2 of the *SPS Agreement*.

144. As explained in the previous section of this Report, the Panel decided that it would not limit its analysis to the risk of transmission of fire blight inherent in mature, symptomless apple fruit.[240] Thus, the Panel also considered the risk associated with other apples (that is, immature apples, or mature but damaged apples)[241] that might enter Japanese territory as a result of human or technical errors, or of illegal actions.

145. In the course of its analysis as to whether Japan's measure is maintained without sufficient scientific evidence within the meaning of Article 2.2 of the *SPS Agreement*, the Panel, on the basis of the information before it, made the following findings of fact:

- Infection[242] of mature, symptomless apples has not been established. Mature apples are unlikely to be infected by fire blight if they do not show any symptoms[243];

- The possible presence of endophytic[244] bacteria in mature, symptomless apples is not generally established. Scientific evidence does not support the conclusion that mature, symptomless apples could harbour endophytic populations of bacteria[245];

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[240]See *supra*, para. 131.

[241]Panel Report, paras. 8.122 and 8.174.

[242]For the Panel's definition of the term "infection", see *supra*, footnote 17.

[243]Panel Report, paras. 8.139 and 8.171.

[244]The Panel defined "endophytic" as follows: "With respect to *E. amylovora*, the term **endophytic** is used when the bacterium occurs inside a plant or apple fruit in a non-pathogenic relationship." (*Ibid.*, para. 2.10 (original boldface))

[245]*Ibid.*, paras. 8.128 and 8.171.

- The presence of epiphytic [246] bacteria in mature, symptomless apples is considered to be very rare [247];
- It is not contested that immature apple fruit can be infected or infested [248] by *Erwinia amylovora* [249];
- Infected apples are capable of harbouring populations of bacteria that could survive through the various stages of commercial handling, storage, and transportation [250];
- Scientific evidence does not support the conclusion that infested or infected cargo crates could operate as a vector for fire blight transmission; rather, the evidence shows that *Erwinia amylovora* is not likely to survive on crates [251]; and
- Even if infected or infested apples were exported to Japan, and populations of bacteria survived through the various stages of commercial handling, storage, and transportation, the introduction of fire blight would require the transmission of fire blight from imported apples to a host plant through an additional sequence of events that is deemed unlikely, and that has not been experimentally established to date. [252]

146. On the basis of these findings of fact, the Panel concluded that scientific evidence suggests a negligible risk of possible transmission of fire blight through apple fruit [253], and that scientific evidence does not support the view that apples are likely to serve as a pathway for the entry, establishment or spread of fire blight within Japan. [254]

147. For the Panel, a measure is maintained "without sufficient scientific evidence" within the meaning of Article 2.2 of the *SPS Agreement* if there is no "rational or objective relationship" between the measure and the relevant scientific evidence. [255] Given the negligible risk identified on

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[246]The Panel defined "epiphytic" as follows: "With respect to *E. amylovora*, the term **epiphytic** is used when the bacterium occurs on the outer surface of a plant or fruit in a non-pathogenic relationship." (Panel Report, para. 2.10 (original boldface))

[247]*Ibid.*, paras. 8.142 and 8.171.

[248]For the Panel's definition of the terms "infection" and "infestation", see *supra*, footnote 17.

[249]Panel Report, para. 8.171.

[250]*Ibid.*, para. 8.157.

[251]*Ibid.*, para. 8.143.

[252]*Ibid.*, paras. 8.168 and 8.171.

[253]*Ibid.*, para. 8.169.

[254]*Ibid.*, para. 8.176.

[255]*Ibid.*, paras. 8.101-8.103 and 8.180, relying on Appellate Body Report, *Japan – Agricultural Products II*, paras. 73-74, 82, and 84.

the basis of the scientific evidence and the nature of the elements composing the measure, the Panel concluded that Japan's measure is "clearly disproportionate" to that risk.[256] The Panel reasoned that such disproportion implies that a rational or objective relationship does not exist between the measure and the relevant scientific evidence and, therefore, the Panel concluded that Japan's measure is maintained "without sufficient scientific evidence" within the meaning of Article 2.2 of the *SPS Agreement*.[257]

148. Japan challenges the Panel's conclusion, arguing that a *prima facie* case that infected apples would not act as a pathway for fire blight was not made by the United States. Japan contends that, in the absence of such a *prima facie* case, it was not open to the Panel to find a violation of Article 2.2. In addition, Japan argues that the Panel erroneously found that the United States had made a *prima facie* case in respect of mature, symptomless apples. According to Japan, this error resulted from the Panel's improper approach to Japan's risk evaluation, based on a misinterpretation of Article 2.2 of the *SPS Agreement*.[258]

149. With respect to infected apples, Japan submits that it was for the United States to establish a *prima facie* case that there was no risk that infected apples could serve as a vector for the introduction of fire blight within Japan. The United States did not do so, because it presented arguments and evidence relating only to mature, symptomless apples[259], acknowledging explicitly during the Interim Review that "there is no factual claim or evidence submitted by the United States" relating to the risk associated with infected apple fruit.[260] Absent a *prima facie* case by the United States that there was insufficient scientific evidence on the risk posed by infected apples, the Panel, according to Japan, should have ruled in favour of Japan and found that infected apples could act as a pathway for fire blight.[261] In addition, Japan submits that, by finding that "Japan did not submit sufficient scientific evidence in support of its allegation that the last step of the pathway had been completed or was likely to be completed"[262], the Panel shifted the burden of proof to Japan; and that such a shift constituted an error of law as it was made prematurely, before the demonstration of a *prima facie* case by the United States.[263] Finally, Japan argues that the Panel was not entitled to use its investigative authority

[256]Panel Report, para. 8.198.

[257]*Ibid.*, para. 8.199.

[258]Japan's appellant's submission, para. 71.

[259]*Ibid.*, para. 22.

[260]*Ibid.*, para. 23.

[261]*Ibid.*, paras. 26, quoting Panel Report, paras. 7.31 and 8.154; and para. 27.

[262]Panel Report, para. 8.167.

[263]Japan's appellant's submission, para. 33.

to make findings of fact on the risk relating to infected apples because the United States declined to establish a *prima facie* case with respect to this issue.[264]

150. Regarding mature, symptomless apples, Japan advances a distinct argument, namely, that the Panel should have interpreted Article 2.2 in such a way that a "certain degree of discretion"[265] be accorded to the importing Member as to the manner it chooses, weighs, and evaluates scientific evidence.[266] Japan argues that the Panel denied such discretion, as it "evaluated the scientific evidence in accordance with the experts' view, despite the contrary view of an importing Member".[267] Japan contends that its own approach to the risk relating to mature, symptomless apples—an approach that reflects "the historical facts of trans-oceanic expansion of the bacteria" and the rapid growth of international trade, and which is premised on "the fact that the pathways of … transmission of the bacteria are still unknown in spite of several efforts to trace them"[268]—is reasonable as well as scientific because it is derived from "perspectives of prudence and precaution".[269] Consequently, the Panel should have accorded deference to Japan's approach and should have assessed whether the United States had established a *prima facie* case in the light of it. Japan argues that the United States did not establish a *prima facie* case in respect of mature, symptomless apples that reflected Japan's approach. In particular, Japan submits that the United States failed to prove that both the history of trans-oceanic dissemination of fire blight and, the fact that the cause of trans-oceanic dissemination is unknown, are irrelevant.[270]

151. We will examine successively these two arguments of Japan: first, Japan's case relating to apples other than mature, symptomless apples, and secondly, that regarding mature, symptomless apples.

A. *Apples Other Than Mature, Symptomless Apples*

152. It is well settled that, in principle, it rests upon the complaining party to "establish a *prima facie* case of *inconsistency with a particular provision* of the *SPS Agreement*".[271] As the Appellate Body said in *EC – Hormones*:

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[264]Japan's appellant's submission, paras. 18, quoting Appellate Body Report, *Japan – Agricultural Products II*, para. 129; and para. 36.

[265]Japan's appellant's submission, para. 76.

[266]*Ibid.*, para. 75.

[267]*Ibid.*, para. 78.

[268]*Ibid.*, para. 73.

[269]*Ibid.*, para. 81, quoting Appellate Body Report, *EC – Hormones*, para. 124.

[270]Japan's appellant's submission, para. 87.

[271]Appellate Body Report, *EC – Hormones*, para. 98. (emphasis added)

> The initial burden lies on the complaining party, which must establish a *prima facie* case of inconsistency with a particular provision of the *SPS Agreement* on the part of the defending party, or more precisely, of its SPS measure or measures complained about. When that *prima facie* case is made, the burden of proof moves to the defending party, which must in turn counter or refute the claimed inconsistency.[272]

153. In this case, the United States seeks a finding that Japan's measure is inconsistent with Article 2.2 of the *SPS Agreement*. Therefore, the initial burden lies with the United States to establish a *prima facie* case that the measure is inconsistent with Article 2.2. In particular, the United States must establish a *prima facie* case that the measure is "maintained without sufficient scientific evidence" within the meaning of Article 2.2. Following the Appellate Body's ruling in *EC – Hormones*, if this *prima facie* case is made, it would be for Japan to counter or refute the claim that the measure is "maintained without sufficient scientific evidence".

154. That said, the Appellate Body's statement in *EC – Hormones* does not imply that the complaining party is responsible for providing proof of all facts raised in relation to the issue of determining whether a measure is consistent with a given provision of a covered agreement. In other words, although the complaining party bears the burden of proving its case, the responding party must prove the case it seeks to make in response. In *US – Wool Shirts and Blouses*, the Appellate Body stated:

> … we find it difficult, indeed, to see how any system of judicial settlement could work if it incorporated the proposition that the mere assertion of a claim might amount to proof. It is, thus, hardly surprising that various international tribunals, including the International Court of Justice, have generally and consistently accepted and applied the rule that *the party who asserts a fact, whether the claimant or the respondent, is responsible for providing proof thereof.*[273] (footnote omitted, emphasis added)

155. In this case, the United States made a series of allegations of fact relating to mature, symptomless apples as a possible pathway for fire blight, and sought to substantiate these allegations. Japan sought to counter the case made by the United States, arguing that:

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[272]Appellate Body Report, para. 98.

[273]Appellate Body Report, p. 14, DSR 1997:I, 323, at 335.

- Japan must protect itself against failures in the control systems of exporting countries that might result in the introduction of apples other than mature, symptomless apples[274];
- it is possible that apples other than mature, symptomless apples (namely, immature apples or mature but damaged apples) could be infected by fire blight; and
- infected apple fruit has the capacity to serve as a pathway for fire blight.[275]

156. Japan was thus responsible for providing proof of the allegations of fact it advanced in relation to apples other than mature, symptomless apples being exported to Japan as a result of errors of handling or illegal actions. We therefore disagree with Japan's contention that the Panel erred because it "shifted the burden of proof to Japan in respect of a factual point that the complainant explicitly declined to prove"[276] or that "the shift of the burden of proof to Japan was made prematurely *before* the demonstration of a *prima facie* case by the United States."[277]

157. It is important to distinguish, on the one hand, the principle that the complainant must establish a *prima facie* case of inconsistency with a provision of a covered agreement[278] from, on the other hand, the principle that the party that asserts a fact is responsible for providing proof thereof.[279] In fact, the two principles are distinct. In the present case, the burden of demonstrating a *prima facie* case that Japan's measure is maintained without sufficient scientific evidence, rested on the United States. Japan sought to counter the case put forward by the United States by putting arguments in respect of apples other than mature, symptomless apples being exported to Japan as a result of errors of handling or illegal actions. It was thus for Japan to substantiate those allegations; it was not for the United States to provide proof of the facts asserted by Japan. Thus, we disagree with Japan's assertion that "the shift of the burden of proof to Japan was made prematurely *before* the demonstration of a *prima facie* case by the United States."[280] There was no "shift of the burden of proof" with respect to allegations of fact relating to apples other than mature, symptomless apples, for Japan was solely responsible for providing proof of the facts it had asserted. Moreover, it was only after the United States had established a *prima facie* case that Japan's measure is maintained without sufficient scientific evidence, that the Panel had to turn to Japan's attempts to counter that case.

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[274]Panel Report, para. 8.85(d).

[275]*Ibid.*, para. 8.154.

[276]Japan's appellant's submission, para. 31.

[277]*Ibid.*, para. 33. (original italics)

[278]Appellate Body Report, *EC – Hormones*, para. 98.

[279]Appellate Body Report, *US – Wool Shirts and Blouses*, p. 14, DSR 1997:I, 323, at 335.

[280]Japan's appellant's submission, para. 33. (original italics)

158. Japan also contends that the Panel did not have the authority to make certain findings of fact[281] and, in support of this contention, refers to the Appellate Body's statement in *Japan – Agricultural Products II*:

> Article 13 of the DSU and Article 11.2 of the *SPS Agreement* suggest that panels have a significant investigative authority. However, this authority cannot be used by a panel to rule in favour of a complaining party which has not established a *prima facie* case of inconsistency based on specific legal claims asserted by it.[282]

We disagree with Japan. We note first that we are not persuaded that the findings of the Panel, identified by Japan in relation to this argument, relate specifically to, or address apples other than mature, symptomless apples, as Japan seems to assume. Also, the Appellate Body's finding in *Japan – Agricultural Products II* does not support Japan's argument that the Panel was barred from making findings of fact in connection with apples other than mature, symptomless apples. Those findings were relevant to the claim pursued by the United States under Article 2.2 of the *SPS Agreement*, and were responsive to relevant allegations of fact advanced by Japan in the context of its rebuttal of the United States' claim. The Panel acted within the limits of its investigative authority because it did nothing more than assess relevant allegations of fact asserted by Japan, in the light of the evidence submitted by the parties and the opinions of the experts.

159. Japan also submits that, "in order to establish a *prima facie* case of insufficient scientific evidence under Article 2.2 of the SPS Agreement, the complaining party must establish that there is not sufficient scientific evidence for *any* of the perceived risks underlying the measure".[283] According to Japan, the Panel should not have concluded that this *prima facie* case had been established unless the United States had first addressed *all* the possible hypotheses—including those for which the likelihood of occurrence is low or rests upon theoretical reasonings—and had shown for each of them that the risk of transmission of fire blight is negligible. We find no basis for the approach advocated by Japan. As the Appellate Body stated in *EC – Hormones*, "a *prima facie* case

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[281]Japan refers to the following findings of the Panel:

> [W]e are of the opinion that the prohibition of imported apples from any orchard (whether or not it is free of fire blight) should fire blight be detected within a 500-meter buffer zone surrounding such orchard is not supported by sufficient scientific evidence; [and]
>
> [W]e are of the opinion that the requirement that export orchards be inspected at least three times yearly (at blossom, fruitlet, and harvest stages) for the presence of fire blight is not supported by sufficient scientific evidence. (footnotes omitted)

(Japan's appellant's submission, para. 35, quoting Panel Report, paras. 8.185 and 8.195)

[282]Appellate Body Report, para. 129; Japan's appellant's submission, paras. 18 and 44.

[283]Japan's appellee's submission, para. 9. (original italics)

is one which, in the absence of effective refutation by the defending party, requires a panel, as a matter of law, to rule in favour of the complaining party presenting the *prima facie* case."[284] In *US – Wool Shirts and Blouses*, the Appellate Body stated that the nature and scope of evidence required to establish a *prima facie* case "will necessarily vary from measure to measure, provision to provision, and case to case."[285] In the present case, the Panel appears to have concluded that in order to demonstrate a *prima facie* case that Japan's measure is maintained without sufficient scientific evidence, it sufficed for the United States to address only the question of whether mature, symptomless apples could serve as a pathway for fire blight.

160. The Panel's conclusion seems appropriate to us for the following reasons. First, the claim pursued by the United States was that Japan's measure is maintained without sufficient scientific evidence to the extent that it applies to mature, symptomless apples exported from the United States to Japan. What is required to demonstrate a *prima facie* case is necessarily influenced by the nature and the scope of the claim pursued by the complainant. A complainant should not be required to prove a claim it does not seek to make. Secondly, the Panel found that mature, symptomless apple fruit is the commodity "normally exported" by the United States to Japan.[286] The Panel indicated that the risk that apple fruit other than mature, symptomless apples may actually be imported into Japan would seem to arise primarily as a result of human or technical error, or illegal actions[287], and noted that the experts characterized errors of handling and illegal actions as "small" or "debatable" risks.[288] Given the characterization of these risks, in our opinion it was legitimate for the Panel to consider that the United States could demonstrate a *prima facie* case of inconsistency with Article 2.2 of the *SPS Agreement* through argument based solely on mature, symptomless apples. Thirdly, the record contains no evidence to suggest that apples other than mature, symptomless ones have ever been exported to Japan from the United States as a result of errors of handling or illegal actions.[289] Thus, we find no error in the Panel's approach that the United States could establish a *prima facie* case of inconsistency with Article 2.2 of the *SPS Agreement* in relation to apples exported from the United States to Japan, even though the United States confined its arguments to mature, symptomless apples.

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[284]Appellate Body Report, para. 104.

[285]Appellate Body Report, p. 14, DSR 1997:I, 323, at 335.

[286]Panel Report, para. 8.141. The Panel also found that "the importation of immature, infected apples may only occur as a result of a handling error or an illegal action". (*Ibid.*, footnote 275 to para. 8.121)

[287]*Ibid.*, para. 8.174.

[288]*Ibid.*, para. 8.161.

[289]In response to questioning at the oral hearing, Japan indicated that the only evidence relating to the export control procedures of the United States that it submitted to the Panel related to a case of codling moth larvae found in apples shipped from the United States to the Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu. In our view, there was no reason for the Panel to infer from this that apples other than mature, symptomless ones have ever been exported from the United States to Japan.

B. *Mature, Symptomless Apples*

161. We turn now to Japan's arguments in respect of mature, symptomless apples. As we indicated above, Japan contends that the Panel erred in interpreting Article 2.2 of the *SPS Agreement* because the Panel failed to accord a "certain degree of discretion" [290] to the importing Member in the manner in which it chooses, weighs, and evaluates scientific evidence. [291] Japan submitted that, had the Panel accorded such discretion to Japan as the importing Member, the Panel would not have focused on the experts' views. Rather, the Panel would have evaluated the scientific evidence in the light of Japan's approach, which reflects "the historical facts of trans-oceanic expansion of the bacteria" and the rapid growth of international trade, and which is premised on "the fact that the pathways of … transmission of the bacteria are still unknown in spite of several efforts to trace them." [292] Japan thus argues that the Panel erred in the application of Article 2.2 of the *SPS Agreement*, as it should have assessed whether the United States had established a *prima facie* case regarding the sufficiency of scientific evidence, not from the perspective of the experts' views, but, rather, in the light of Japan's approach to scientific evidence. According to Japan, had the Panel made such an assessment, it would have been bound to conclude that the United States had not established a *prima facie* case that Japan's measure is maintained without sufficient scientific evidence.

162. We disagree with Japan. As the Panel correctly noted, the Appellate Body addressed, in *Japan – Agricultural Products II*, the meaning of the term "sufficient", in the context of the expression "sufficient scientific evidence" as found in Article 2.2. [293] The Panel stated that the term "sufficient" implies a "rational or objective relationship" [294] and referred to the Appellate Body's statement there that:

> Whether there is a rational relationship between an SPS measure and the scientific evidence is to be determined on a case-by-case basis and will depend upon the particular circumstances of the case, including the characteristics of the measure at issue and the quality and quantity of the scientific evidence. [295]

The Panel did not err in relying on this interpretation of Article 2.2 and in conducting its assessment of the scientific evidence on this basis.

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[290] Japan's appellant's submission, para. 76.

[291] *Ibid.*, paras. 75-76.

[292] *Ibid.*, para. 73.

[293] Panel Report, paras. 8.101-8.103 and 8.180.

[294] *Ibid.*, paras. 8.103 and 8.180.

[295] *Ibid.*, para. 8.103, quoting Appellate Body Report, *Japan – Agricultural Products II*, para. 84.

163. As we see it, the Panel examined the evidence adduced by the parties and considered the opinions of the experts. It concluded as a matter of fact that it is not likely that apple fruit would serve as a pathway for the entry, establishment or spread of fire blight in Japan.[296] The Panel then contrasted the extent of the risk and the nature of the elements composing the measure, and concluded that the measure was "clearly disproportionate to the risk identified on the basis of the scientific evidence available."[297] For the Panel, such "clear disproportion" implies that a "rational or objective relationship" does not exist between the measure and the relevant scientific evidence, and, therefore, the Panel concluded that the measure is maintained "without sufficient scientific evidence" within the meaning of Article 2.2 of the *SPS Agreement*.[298] We note that the "clear disproportion" to which the Panel refers, relates to the application in this case of the requirement of a "rational or objective relationship between an SPS measure and the scientific evidence".

164. We emphasize, following the Appellate Body's statement in *Japan – Agricultural Products II*, that whether a given approach or methodology is appropriate in order to assess whether a measure is maintained "without sufficient scientific evidence", within the meaning of Article 2.2, depends on the "particular circumstances of the case", and must be "determined on a case-by-case basis".[299] Thus, the approach followed by the Panel in this case—disassembling the sequence of events to identify the risk and comparing it with the measure—does not exhaust the range of methodologies available to determine whether a measure is maintained "without sufficient scientific evidence" within the meaning of Article 2.2. Approaches different from that followed by the Panel in this case could also prove appropriate to evaluate whether a measure is maintained without sufficient scientific evidence within the meaning of Article 2.2. Whether or not a particular approach is appropriate will depend on the "particular circumstances of the case".[300] The methodology adopted by the Panel was appropriate to the particular circumstances of the case before it and, therefore, we see no error in the Panel's reliance on it.

165. Regarding Japan's contention that the Panel should have made its assessment under Article 2.2 in the light of Japan's approach to risk and scientific evidence, we recall that, in *EC – Hormones*, the Appellate Body addressed the question of the standard of review that a panel should apply in the assessment of scientific evidence submitted in proceedings under the *SPS Agreement*. It stated that Article 11 of the DSU sets out the applicable standard, requiring panels

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[296]Panel Report, para. 8.176.

[297]*Ibid.*, para. 8.198.

[298]*Ibid.*, para. 8.199.

[299]Appellate Body Report, para. 84.

[300]*Ibid.*

to make an "objective assessment of the facts". It added that, as regards fact-finding by panels and the appreciation of scientific evidence, total deference to the findings of the national authorities would not ensure an objective assessment as required by Article 11 of the DSU.[301] In our view, Japan's submission that the Panel was obliged to favour Japan's approach to risk and scientific evidence over the views of the experts conflicts with the Appellate Body's articulation of the standard of "objective assessment of the facts".

166. In order to assess whether the United States had established a *prima facie* case, the Panel was entitled to take into account the views of the experts. Indeed, in *India – Quantitative Restrictions*, the Appellate Body indicated that it may be useful for a panel to consider the views of the experts it consults in order to determine whether a *prima facie* case has been made.[302] Moreover, on several occasions, including disputes involving the evaluation of scientific evidence, the Appellate Body has stated that panels enjoy discretion as the trier of facts[303]; they enjoy "a margin of discretion in assessing the value of the evidence, and the weight to be ascribed to that evidence."[304] Requiring panels, in their assessment of the evidence before them, to give precedence to the importing Member's evaluation of scientific evidence and risk is not compatible with this well-established principle.

167. For these reasons, we reject the contention that, under Article 2.2, a panel is obliged to give precedence to the importing Member's approach to scientific evidence and risk when analyzing and assessing scientific evidence. Consequently, we disagree with Japan that the Panel erred in assessing whether the United States had established a *prima facie* case when it did so from a perspective different from that inherent in Japan's approach to scientific evidence and risk. Thus, we are not persuaded that we should revisit the Panel's conclusion that the United States established a *prima facie* case that Japan's measure is maintained without sufficient scientific evidence.

168. In the light of these considerations, we uphold the Panel's findings, in paragraphs 8.199 and 9.1(a) of the Panel Report, that Japan's phytosanitary measure at issue is maintained "without sufficient scientific evidence" within the meaning of Article 2.2 of the *SPS Agreement*.

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[301] Appellate Body Report, *EC – Hormones*, para. 117.

[302] Appellate Body Report, para. 142.

[303] Appellate Body Report, *EC – Bed Linen (Article 21.5 – India)*, paras. 170, 177, and 181; Appellate Body Report, *EC – Sardines*, para. 299; Appellate Body Report, *Korea – Alcoholic Beverages*, paras. 161-162; Appellate Body Report, *EC – Hormones*, para. 132; and Appellate Body Report, *US – Wheat Gluten*, para. 151. See also, Appellate Body Report, *Australia – Salmon*, paras. 262-267; Appellate Body Report, *Japan – Agricultural Products II*, paras. 140-142; and Appellate Body Report, *Korea – Dairy*, paras. 137-138.

[304] Appellate Body Report, *EC – Asbestos*, para. 161.

VIII. Article 5.7 of the *SPS Agreement*

169. We turn to the issue whether the Panel erred in finding that Japan's phytosanitary measure was not imposed in respect of a situation where "relevant scientific evidence is insufficient" within the meaning of Article 5.7 of the *SPS Agreement*.

170. Article 2.2 of the *SPS Agreement* stipulates that Members shall not maintain sanitary or phytosanitary measures without sufficient scientific evidence "except as provided for in paragraph 7 of Article 5". Before the Panel, Japan contested that its phytosanitary measure is "maintained without sufficient scientific evidence" within the meaning of Article 2.2. Japan claimed, in the alternative, that its measure is a provisional measure consistent with Article 5.7.

171. Article 5.7 of the *SPS Agreement* reads as follows:

> *Assessment of Risk and Determination of the Appropriate Level of Sanitary or Phytosanitary Protection*
>
> …
>
> In cases where relevant scientific evidence is insufficient, a Member may provisionally adopt sanitary or phytosanitary measures on the basis of available pertinent information, including that from the relevant international organizations as well as from sanitary or phytosanitary measures applied by other Members. In such circumstances, Members shall seek to obtain the additional information necessary for a more objective assessment of risk and review the sanitary or phytosanitary measure accordingly within a reasonable period of time.

172. The Panel found that Japan's measure is not a provisional measure justified under Article 5.7 of the *SPS Agreement* because the measure was not imposed in respect of a situation where "relevant scientific evidence is insufficient".[305]

173. The Panel identified the "phytosanitary question at issue" as the risk of transmission of fire blight through apple fruit.[306] It observed that "scientific studies as well as practical experience have accumulated for the past 200 years"[307] on this question and that, in the course of its analysis under Article 2.2, it had come across an "important amount of relevant evidence".[308] The Panel observed that a large quantity of high quality scientific evidence on the risk of transmission of fire blight through apple fruit had been produced over the years, and noted that the experts had expressed strong

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[305] Panel Report, paras. 8.221-8.222.

[306] *Ibid.*, para. 8.218.

[307] *Ibid.*, para. 8.219.

[308] *Ibid.*, para. 8.216.

and increasing confidence in this evidence. Stating that Article 5.7 was "designed to be invoked in situations where little, or no, reliable evidence was available on the subject matter at issue"[309], the Panel concluded that the measure was not imposed in respect of a situation where relevant scientific evidence is insufficient.[310] The Panel added that, even if the term "relevant scientific evidence" in Article 5.7 referred to a *specific aspect* of a phytosanitary problem, as Japan claimed, its conclusion would remain the same. The Panel justified its view on the basis of the experts' indication that, not only is there a large volume of general evidence, but there is also a large volume of relevant scientific evidence on the specific scientific questions raised by Japan.[311]

174. Japan challenges the Panel's finding that the measure is not imposed in respect of a situation where "relevant scientific evidence is insufficient" within the meaning of Article 5.7 of the *SPS Agreement*.[312] Moreover, Japan submits that its measure meets all the other requirements of Article 5.7.[313] Accordingly, Japan requests us to reverse the Panel's finding and to complete the analysis regarding the consistency of its measure with the other requirements set out in Article 5.7.[314]

A. *The Insufficiency of Relevant Scientific Evidence*

175. As noted above, Japan's claim under Article 5.7 was argued before the Panel in the alternative.[315] Japan relied on Article 5.7 only in the event that the Panel rejected Japan's view that "sufficient scientific evidence" exists to maintain the measure within the meaning of Article 2.2. It is in this particular context that the Panel assigned the burden of proof to Japan to make a *prima facie* case in support of its position under Article 5.7.[316]

176. In *Japan – Agricultural Products II*, the Appellate Body stated that Article 5.7 sets out four requirements that must be satisfied in order to adopt and maintain a provisional phytosanitary measure.[317] These requirements are:

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[309]Panel Report, para. 8.219.

[310]*Ibid.*

[311]*Ibid.*, para. 8.220.

[312]We note that Japan does not challenge the Panel's conclusion that in order to assess whether the measure was imposed in respect of a situation where "relevant scientific evidence is insufficient", the Panel had to consider "not only evidence supporting Japan's position, but also evidence supporting other views." (*Ibid.*, para.8.216)

[313]Japan's appellant's submission, paras. 117-120.

[314]*Ibid.*, paras. 120-121.

[315]Panel Report, para. 4.202.

[316]The Panel's assignment of the burden of proof to Japan to make a *prima facie* case of consistency with Article 5.7 is not challenged on appeal.

[317]Appellate Body Report, para. 89.

(i) the measure is imposed in respect of a situation where "relevant scientific evidence is insufficient";

(ii) the measure is adopted "on the basis of available pertinent information";

(iii) the Member which adopted the measure "seek[s] to obtain the additional information necessary for a more objective assessment of risk"; and

(iv) the Member which adopted the measure "review[s] the … measure accordingly within a reasonable period of time".[318]

These four requirements are "clearly cumulative in nature"[319]; as the Appellate Body said in *Japan – Agricultural Products II*, "[w]henever *one* of these four requirements is not met, the measure at issue is inconsistent with Article 5.7."[320]

177. The Panel's findings address exclusively the first requirement, which the Panel found Japan had not met.[321] The requirements being cumulative, the Panel found it unnecessary to address the other requirements to find an inconsistency with Article 5.7.

178. Japan's appeal also focuses on the first requirement of Article 5.7. Japan contends that the assessment as to whether relevant scientific evidence is insufficient should not be restricted to evidence "in general" on the phytosanitary question at issue, but should also cover a "particular situation" in relation to a "particular measure" or a "particular risk".[322] Hence, Japan submits that the phrase "[w]here relevant scientific evidence is insufficient", in Article 5.7, "should be interpreted to relate to a particular situation in respect of a particular *measure* to which Article 2.2 applies (or a particular risk), but not to a particular *subject matter* in general, which Article 2.2 does not address."[323] According to Japan, the Panel "erred by interpreting the applicability of [Article 5.7] too narrowly"[324] and too "rigid[ly]".[325]

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[318]Appellate Body Report, *Japan – Agricultural Products II*, para. 89. The third and fourth requirements relate to the *maintenance* of a provisional phytosanitary measure and highlight the *provisional* nature of measures adopted pursuant to Article 5.7.

[319]Appellate Body Report, *Japan – Agricultural Products II*, para. 89.

[320]*Ibid.* (original italics)

[321]Panel Report, para. 8.222.

[322]Japan's appellant's submission, para. 102.

[323]*Ibid*. (original italics)

[324]*Ibid.*, para. 96.

[325]*Ibid.*, paras. 100-101.

179. It seems to us that Japan's reliance on the opposition between evidence "in general" and evidence relating to specific aspects of a particular subject matter is misplaced. The first requirement of Article 5.7 is that there must be insufficient scientific evidence. When a panel reviews a measure claimed by a Member to be provisional, that panel must assess whether "relevant scientific evidence is insufficient". This evaluation must be carried out, not in the abstract, but in the light of a particular inquiry. The notions of "relevance" and "insufficiency" in the introductory phrase of Article 5.7 imply a relationship between the scientific evidence and something else. Reading this introductory phrase in the broader context of Article 5 of the *SPS Agreement*, which is entitled "Assessment of Risk and Determination of the Appropriate Level of Sanitary or Phytosanitary Protection", is instructive in ascertaining the nature of the relationship to be established. Article 5.1 sets out a key discipline under Article 5, namely that "Members shall ensure that their sanitary or phytosanitary measures are based on an assessment … of the risks to human, animal or plant life or health".[326] This discipline informs the other provisions of Article 5, including Article 5.7. We note, as well, that the second sentence of Article 5.7 refers to a "more objective assessment of risks". These contextual elements militate in favour of a link or relationship between the first requirement under Article 5.7 and the obligation to perform a risk assessment under Article 5.1: "relevant scientific evidence" will be "insufficient" within the meaning of Article 5.7 if the body of available scientific evidence does not allow, in quantitative or qualitative terms, the performance of an adequate assessment of risks as required under Article 5.1 and as defined in Annex A to the *SPS Agreement*. Thus, the question is not whether there is sufficient evidence of a general nature or whether there is sufficient evidence related to a specific aspect of a phytosanitary problem, or a specific risk. The question is whether the relevant evidence, be it "general" or "specific", in the Panel's parlance, is sufficient to permit the evaluation of the likelihood of entry, establishment or spread of, in this case, fire blight in Japan.

180. The Panel found that, with regard to the risk of transmission of fire blight through apples exported from the United States—"normally"[327], mature, symptomless apples—"not only a large quantity but a high quality of scientific evidence has been produced over the years that describes the risk of transmission of fire blight through apple fruit as negligible", and that "this is evidence in which the experts have expressed strong and increasing confidence."[328]

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[326]The risk assessment referred to in Article 5.1 is defined in Annex A to the *SPS Agreement*.

[327]Panel Report, paras. 8.87 and 8.141.

[328]*Ibid.*, para. 8.219.

181. Japan also raised specific questions related to endophytic bacteria in mature apple fruit and regarding the completion of contamination pathways.[329] In relation to these specific questions, the Panel made the finding of fact, based on indications of the experts retained by the Panel, that there is a large volume of relevant scientific evidence regarding these questions as well.[330] Moreover, Japan did not persuade the Panel that this scientific evidence is not conclusive or has not produced reliable results.[331]

182. These findings of fact by the Panel suggest that the body of available scientific evidence permitted, in quantitative and qualitative terms, the performance of an assessment of risks, as required under Article 5.1 and as defined in Annex A to the *SPS Agreement*, with respect to the risk of transmission of fire blight through apple fruit exported from the United States to Japan. In particular, according to these findings of fact by the Panel, the body of available scientific evidence would allow "[t]he evaluation of the likelihood of entry, establishment or spread"[332] of fire blight in Japan through apples exported from the United States. Accordingly, in the light of the findings of fact made by the Panel, we conclude that, with respect to the risk of transmission of fire blight through apple fruit exported from the United States to Japan ("normally", mature, symptomless apples), the "relevant scientific evidence" is not "insufficient" within the meaning of Article 5.7.

B. *Japan's Argument on "Scientific Uncertainty"*

183. Japan challenges the Panel's statement that Article 5.7 is intended to address only "situations where little, or no, reliable evidence was available on the subject matter at issue"[333] because this does not provide for situations of "unresolved uncertainty". Japan draws a distinction between "new uncertainty" and "unresolved uncertainty"[334], arguing that both fall within Article 5.7. According to Japan, "new uncertainty" arises when a new risk is identified; Japan argues that the Panel's characterization that "little, or no, reliable evidence was available on the subject matter at issue" is relevant to a situation of "new uncertainty".[335] We understand that Japan defines "unresolved uncertainty" as uncertainty that the scientific evidence is not able to resolve, despite accumulated scientific evidence.[336] According to Japan, the risk of transmission of fire blight through apple fruit

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[329]Panel Report, para. 8.220.

[330]*Ibid.*,

[331]*Ibid.*, para. 7.9. See also the Panel's findings of fact in paragraphs 8.128, 8.168, and 8.171 of the Panel Report, made in the context of the Panel's analysis under Article 2.2 of the *SPS Agreement*.

[332]Annex A to the *SPS Agreement*, para. 4.

[333]Panel Report, para. 8.219.

[334]Japan's appellant's submission, para. 101.

[335]*Ibid.*, footnote 76 to para. 98.

[336]*Ibid.*, para. 98.

relates essentially to a situation of "unresolved uncertainty".[337] Thus, Japan maintains that, despite considerable scientific evidence regarding fire blight, there is still uncertainty about certain aspects of transmission of fire blight. Japan contends that the reasoning of the Panel is tantamount to restricting the applicability of Article 5.7 to situations of "new uncertainty" and to excluding situations of "unresolved uncertainty"; and that, by doing so, the Panel erred in law.[338]

184. We disagree with Japan. The application of Article 5.7 is triggered not by the existence of scientific uncertainty, but rather by the insufficiency of scientific evidence. The text of Article 5.7 is clear: it refers to "cases where relevant scientific evidence is insufficient", not to "scientific uncertainty". The two concepts are not interchangeable. Therefore, we are unable to endorse Japan's approach of interpreting Article 5.7 through the prism of "scientific uncertainty".

185. We also find no basis for Japan's argument that the Panel's interpretation of Article 5.7 is too narrow for the reason that it excludes cases where the quantity of evidence on a phytosanitary question is "more than little"[339], but the available scientific evidence has not resolved the question. The Panel's statement that Article 5.7 is intended to address "situations where little, or no, reliable evidence was available on the subject matter at issue", refers to the availability of *reliable* evidence. We do not read the Panel's interpretation as excluding cases where the available evidence is more than minimal in quantity, but has not led to reliable or conclusive results. Indeed, the Panel explicitly recognized that such cases fall within the scope of Article 5.7 when it observed, in the Interim Review section of its Report, that under its approach, Article 5.7 would be applicable to a situation where a lot of scientific research has been carried out on a particular issue without yielding reliable evidence.[340]

C. *The Panel's Reliance on a "History of 200 Years of Studies and Practical Experience"*

186. Japan contends that the conclusion of the Panel regarding Article 5.7 is based on its assessment that, as regards fire blight, "scientific studies as well as practical experience have accumulated for the past 200 years".[341] Japan submits that the Panel was not authorized to rule on the basis of a " 'history' of 200 year[s] of studies and practical experience"[342] because "the United States did not raise any objection to application of Article 5.7 on the basis of [a] 'history' of 200 year[s] of studies and practical experience."[343] In other words, according to Japan, the Panel was not entitled to

[337] Japan's appellant's submission, paras. 105-110.

[338] *Ibid.*, para. 110.

[339] Panel Report, para. 7.8.

[340] *Ibid.*, para. 7.9.

[341] *Ibid.*, para. 8.219; Japan's appellant's submission, paras. 93 and 97.

[342] Japan's appellant's submission, para. 97.

[343] *Ibid.*

draw a conclusion regarding Article 5.7 on the basis of such "history" unless the United States had raised an objection based on "history", something that the United States had not done.[344]

187. In the course of its reasoning, the Panel mentioned that, as regards the risk of transmission of fire blight through apple fruit, "scientific studies as well as practical experience have accumulated for the past 200 years".[345] This statement was relevant to the debate under Article 5.7 and was based on the evidence before the Panel.[346] Accordingly, it was appropriate for the Panel to make such a statement irrespective of whether the United States had explicitly advanced an argument based on "history".

188. In the light of these considerations, we uphold the findings of the Panel, in paragraphs 8.222 and 9.1(b) of the Panel Report, that Japan's phytosanitary measure at issue was not imposed in respect of a situation "where relevant scientific evidence is insufficient", and, therefore, that it is not a provisional measure justified under Article 5.7 of the *SPS Agreement*. We note that Japan requested us, in the event we were to reverse the Panel's finding on Article 5.7, to complete the analysis in respect of the other requirements set out in Article 5.7 of the *SPS Agreement*. Given our conclusion, there is no need to do so.

IX. Article 5.1 of the *SPS Agreement*

189. We turn now to Japan's allegations of error with respect to Article 5.1 of the *SPS Agreement*. The Panel began its evaluation of the United States' claim under Article 5.1 by noting that both parties effectively identified a document referred to as the "1999 PRA" as the risk assessment to be analyzed in this evaluation.[347] Japan, however, objected to the Panel's consideration of evidence arising subsequent to the 1999 PRA when assessing the 1999 PRA's conformity with the requirements of Article 5.1. Despite this objection, the Panel concluded that it would "consider principally the 1999 PRA as the relevant risk assessment in this case, but we do not exclude that other elements, including subsequent information, could also be of relevance."[348]

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[344] Japan's appellant's submission, para. 97.

[345] Panel Report, para. 8.219.

[346] We note that Dr. Chris Hale, one of the experts consulted by the Panel, referred to a historical perspective when he stated that "fire blight had taken 220 years to spread from New York State, USA in 1780, to its latest geographic locations". (*Ibid.*, para. 6.28)

[347] *Ibid.*, para. 8.247. In response to questioning at the oral hearing, both participants reaffirmed the focus of the Panel's Article 5.1 analysis to be the 1999 PRA.

[348] Panel Report, para. 8.248.

190. On the substance of the claim, the Panel noted first that the United States did not contest the fact that the 1999 PRA properly identified fire blight as the disease of concern.[349] The focus of the United States' claim was that (i) the risk assessment did not sufficiently evaluate the likelihood of entry, establishment or spread of fire blight, and (ii) this evaluation was not performed "according to the SPS measures which might be applied".[350]

191. As to the first element of the claim, the Panel said that a risk assessment must be sufficiently specific to the risk at issue. In this regard, the Panel observed that the 1999 PRA studied several possible hosts of fire blight, including apple fruit. Recognizing that the risk of transmission of fire blight could vary significantly from plant to plant, the Panel found that the risk assessment was not "sufficiently specific" because "the conclusion of the [1999] PRA [did] not purport to relate exclusively to the introduction of the disease through apple fruit, but rather more generally, apparently, through any susceptible host/vector."[351]

192. The Panel similarly found the discussion of possible pathways to have "intertwined" the risk of entry through apple fruit with that of other possible vectors, including vectors considered more likely to be potential sources of contamination than apple fruit.[352] The Panel also determined that those parts of the 1999 PRA that specifically addressed apple fruit, although noting the *possibility* of entry, establishment or spread of fire blight through this vector, did not properly evaluate the *probability* of the occurrence of such events. Finally, the Panel recalled the testimony of certain experts, identifying several steps in the evaluation of the probability of entry that had been "overlooked" by the 1999 PRA.[353] In the light of these shortcomings, the Panel concluded that Japan's risk assessment did not properly evaluate the likelihood of entry, establishment or spread of fire blight through apple fruit.

193. With respect to the second element of the United States' claim, the Panel observed that a risk assessment, according to Annex A to the *SPS Agreement*, requires an evaluation "according to the sanitary or phytosanitary measures which might be applied". From this language, the Panel determined that a risk assessment must not only consider the particular measure already in place, but

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[349]Panel Report, para. 8.252.

[350]*Ibid.*, para. 8.253.

[351]*Ibid.*, para. 8.271.

[352]*Ibid.*, para. 8.278.

[353]*Ibid.*, para. 8.279.

also other measures that "*might*" be applied.[354] Because the 1999 PRA did not consider other risk-mitigating measures, the Panel found the risk assessment inadequate for purposes of Article 5.1.

194. Reviewing Japan's evaluation of the measure that was already in place, the Panel acknowledged that the 1999 PRA could be considered to have provided "some" evaluation of the likelihood of entry of the disease and possible mitigation through the existing measure. The Panel noted, however, that, in *Australia – Salmon*, the Appellate Body found that "some" evaluation was insufficient for purposes of Article 5.1 and that a comparison between Japan's evaluation and that of the importing Member in that case reveals the 1999 PRA to be "considerably less substantial".[355] The Panel also noted that the 1999 PRA assumes that the individual components of Japan's measure would be applied cumulatively, without consideration as to their individual effectiveness. The Panel found that the required consideration of alternative measures included an obligation to evaluate whether the independent elements needed to be applied cumulatively and to provide an explanation therefor.[356] As a result, the Panel concluded that, in the 1999 PRA, Japan did not sufficiently conduct its evaluation "according to the sanitary or phytosanitary measures which might be applied".

195. Japan challenges three specific aspects of the Panel's analysis of the 1999 PRA under Article 5.1. First, Japan contests the Panel's finding that the 1999 PRA is inconsistent with the requirements of Article 5.1 because it did not focus its analysis on the risk of fire blight entering through *apple fruit*, in particular. Japan contends that the Panel misinterpreted Article 5.1 and misunderstood the Appellate Body's decision in *EC – Hormones* with respect to the requirement of "specificity" of a risk assessment.[357] Secondly, Japan argues that Article 5.1, contrary to the Panel's interpretation, does not require a consideration of "alternative measures other than [the] existing measures."[358] Finally, Japan claims that its risk assessment should be assessed in the light of evidence available at the time of the assessment, not against evidence that has become available subsequently.[359]

196. We begin our analysis with the text of the relevant provision at issue, Article 5.1 of the *SPS Agreement*:

[354]*Ibid.*, para. 8.283. (original italics)

[355]Panel Report, para. 8.287.

[356]*Ibid.*, para. 8.288.

[357]Japan's appellant's submission, paras. 127-129.

[358]*Ibid.*, para. 133, quoting Panel Report, para. 8.285.

[359]Japan's appellant's submission, paras. 135-138.

> Members shall ensure that their sanitary or phytosanitary measures are based on an assessment, as appropriate to the circumstances, of the risks to human, animal or plant life or health, taking into account risk assessment techniques developed by the relevant international organizations.

The first clause of paragraph 4 of Annex A to the *SPS Agreement* defines the "risk assessment" for a measure designed to protect plant life or health from risks arising from the entry, establishment or spread of diseases as follows:

> *Risk assessment* - The evaluation of the likelihood of entry, establishment or spread of a pest or disease within the territory of an importing Member according to the sanitary or phytosanitary measures which might be applied, and of the associated potential biological and economic consequences … .[360]

Based on this definition, the Appellate Body determined in *Australia – Salmon* that:

> … a risk assessment within the meaning of Article 5.1 must:
>
> (1) *identify* the diseases whose entry, establishment or spread a Member wants to prevent within its territory, as well as the potential biological and economic consequences associated with the entry, establishment or spread of these diseases;
>
> (2) *evaluate the likelihood* of entry, establishment or spread of these diseases, as well as the associated potential biological and economic consequences; and
>
> (3) evaluate the likelihood of entry, establishment or spread of these diseases *according to the SPS measures which might be applied*.[361] (original italics)

197. As the Panel noted, the United States does not claim that Japan's risk assessment failed to meet the first of these conditions.[362] The Panel therefore limited its analysis of Japan's risk assessment to the second and third conditions. The Panel found that the 1999 PRA did not constitute a "risk assessment", as that term is defined in the *SPS Agreement*, because it did not satisfy either of those conditions. Japan challenges aspects of the Panel's analysis with respect to both of these conditions. We consider each of these conditions before turning to Japan's argument regarding the evidence that may be relied upon by a panel when evaluating a risk assessment.

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[360]The second clause in paragraph 4 of Annex A to the *SPS Agreement* addresses risk assessments evaluating the "potential for adverse effects on human or animal health arising from the presence of additives, contaminants, toxins or disease-causing organisms in food, beverages or feedstuffs." As such, the second clause does not define the type of risk assessment relevant to this dispute involving the possibility of transmission of fire blight to plants in Japan. (See Appellate Body Report, *Australia – Salmon*, footnote 67 to para. 120)

[361]*Ibid.*, para. 121.

[362]Panel Report, para. 8.252.

A. *Evaluating the Likelihood of Entry, Establishment or Spread of Fire Blight*

198. Japan challenges first the Panel's finding that the 1999 PRA was not sufficiently specific to constitute a risk assessment under the *SPS Agreement* because it did not evaluate the risk in relation to *apple fruit*, in particular. In *EC – Hormones*, in the context of evaluating whether a measure was "based on" a risk assessment, the Appellate Body examined the specificity of the risk assessment relied upon by the importing Member. In that case, the importing Member had referred to certain scientific studies and articles as the risk assessment underlying its measures. In its Report, the Appellate Body described the panel's finding that these materials:

> … relate[d] to the carcinogenic potential of entire *categories* of hormones, or of the hormones at issue *in general*. … [They did] not evaluate[] the carcinogenic potential of those hormones when used specifically *for growth promotion purposes*. Moreover, they [did] not evaluate the specific potential for carcinogenic effects arising from the presence *in "food"*, more specifically, "meat or meat products" of residues of the hormones in dispute.[363] (original italics)

199. The panel in *EC – Hormones* concluded, as a result, that the studies cited by the importing Member were insufficient to support the measures at issue. The Appellate Body upheld these findings, stating that, although the studies cited by the importing Member:

> … [did] indeed show the existence of a general risk of cancer … they [did] not focus on and [did] not address the particular kind of risk [t]here at stake - the carcinogenic or genotoxic potential of the residues of those hormones found in meat derived from cattle to which the hormones had been administered for growth promotion purposes -- as is required by paragraph 4 of Annex A of the *SPS Agreement*.[364]

The Appellate Body therefore concluded that the risk assessment was not "sufficiently specific to the case at hand."[365]

200. In this case, the Panel, relying on the Appellate Body's finding in *EC – Hormones*, concluded that the 1999 PRA was not sufficiently specific to constitute a "risk assessment" in accordance with the *SPS Agreement*.[366] The Panel based this conclusion on its finding that, although the 1999 PRA makes determinations as to the entry, establishment and spread of fire blight through a collection of various hosts (including apple fruit), it failed to evaluate the entry, establishment or

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[363] Appellate Body Report, *EC – Hormones*, para. 199.

[364] *Ibid.*, para. 200.

[365] *Ibid.*

[366] Panel Report, paras. 8.267 and 8.271.

spread of fire blight through apple fruit as a separate and distinct vector.[367] As the Panel stated in response to Japan's comments during the Interim Review, "Japan evaluated the risks associated with all possible hosts taken together, not sufficiently considering the risks specifically associated with the commodity at issue: US apple fruit exported to Japan."[368]

201. Japan does not contest the Panel's characterization of the risk assessment as one that did not analyze the risks of apple fruit separately from risks posed by other hosts.[369] Rather, Japan claims that the Panel's reasoning relates to a "matter of methodology", which lies within the discretion of the importing Member.[370] Japan contends that the requirement of "specificity" explained in *EC – Hormones* refers to the specificity of the risk and not to the methodology of the risk assessment.[371]

202. We disagree with Japan. Under the *SPS Agreement*, the obligation to conduct an assessment of "risk" is not satisfied merely by a general discussion of the disease sought to be avoided by the imposition of a phytosanitary measure.[372] The Appellate Body found the risk assessment at issue in *EC – Hormones* not to be "sufficiently specific" even though the scientific articles cited by the importing Member had evaluated the "carcinogenic potential of entire *categories* of hormones, or of the hormones at issue *in general*."[373] In order to constitute a "risk assessment" as defined in the *SPS Agreement*, the Appellate Body concluded, the risk assessment should have reviewed the carcinogenic potential, not of the relevant hormones in general, but of "residues of those hormones found in meat derived from cattle to which the hormones had been administered for growth promotion purposes".[374] Therefore, when discussing the risk to be specified in the risk assessment in *EC – Hormones*, the Appellate Body referred in general to the harm concerned (cancer or genetic damage) *as well as* to the precise agent that may possibly cause the harm (that is, the specific hormones when used in a specific manner and for specific purposes).

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[367]*Ibid.*, paras. 8.268-8.271.

[368]Panel Report, para. 7.14.

[369]Japan's appellant's submission, para. 128; Japan's response to questioning at the oral hearing.

[370]Japan's appellant's submission, para. 127.

[371]*Ibid.*, para. 129.

[372]Indeed, we are of the view that, as a general matter, "risk" cannot usually be understood only in terms of the disease or adverse effects that may result. Rather, an evaluation of risk must connect the possibility of adverse effects with an antecedent or cause. For example, the abstract reference to the "risk of cancer" has no significance, in and of itself, under the *SPS Agreement*; but when one refers to the "risk of cancer from smoking cigarettes", the particular risk is given content.

[373]Appellate Body Report, para. 199. (original italics) In other words, the risk assessment proffered by the importing Member in *EC – Hormones* considered the relationship between the broad *grouping* of hormones that were the subject of the measure and cancer.

[374]*Ibid.*, para. 200.

203. In this case, the Panel found that the conclusion of the 1999 PRA with respect to fire blight was "based on an overall assessment of possible modes of contamination, where apple fruit is only one of the possible hosts/vectors considered."[375] The Panel further found, on the basis of the scientific evidence, that the risk of entry, establishment or spread of the disease varies significantly depending on the vector, or specific host plant, being evaluated.[376] Given that the measure at issue relates to the risk of transmission of fire blight through apple fruit, in an evaluation of whether the risk assessment is "sufficiently specific to the case at hand"[377], the nature of the risk addressed by the measure at issue is a factor to be taken into account. In the light of these considerations, we are of the view that the Panel properly determined that the 1999 PRA "evaluat[ion of] the risks associated with all possible hosts taken together"[378] was not sufficiently specific to qualify as a "risk assessment" under the *SPS Agreement* for the evaluation of the likelihood of entry, establishment or spread of fire blight in Japan through apple fruit.[379]

204. Japan contends that the "methodology" of the risk assessment is not directly addressed by the *SPS Agreement*. In particular, Japan suggests that, whether to analyze the risk on the basis of the particular pest or disease, or on the basis of a particular commodity, is a "matter of methodology" not directly addressed by the *SPS Agreement*.[380] We agree. Contrary to Japan's submission, however, the Panel's reading of *EC – Hormones* does not suggest that there is an obligation to follow any particular methodology for conducting a risk assessment. In other words, even though, in a given context, a risk assessment must consider a specific agent or pathway through which contamination might occur, Members are not precluded from organizing their risk assessments along the lines of the disease or pest at issue, or of the commodity to be imported. Thus, Members are free to consider in their risk analysis multiple agents in relation to one disease, provided that the risk assessment attribute a likelihood of entry, establishment or spread of the disease to each agent specifically. Members are

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[375]Panel Report, para. 8.270.

[376]*Ibid.*, reads, in relevant part:

> The scientific evidence submitted by both parties leaves no doubt that the risk of introduction and spread of the disease varies considerably according to the host plant, with nursery stock and budding material identified as known sources for the spread of fire blight in some cases.

[377]Appellate Body Report, *EC – Hormones*, para. 200.

[378]Panel Report, para. 7.14.

[379]We note our understanding that the Panel did not base its finding on, nor make any reference to, whether the *SPS Agreement* requires a risk assessment to analyze the importation of products on a *country-specific* basis. Neither participant in this appeal has asked us to find that the definition of "risk assessment" in the *SPS Agreement* mandates an analysis of risk specific to *each country* of exportation. As a result, we make no findings with respect to whether such a *country-specific* analysis is required in order to satisfy a Member's obligations under Article 5.1 of the *SPS Agreement*.

[380]Japan's appellant's submission, paras. 127-128.

also free to follow the other "methodology" identified by Japan and focus on a particular commodity, subject to the same proviso.

205. Indeed, the relevant international standards, which, Japan claims, "adopt both methodologies" [381], expressly contemplate examining risk in relation to particular pathways. [382] Those standards call for that specific examination even when the risk analysis is initiated on the basis of the particular pest or disease at issue [383], as was the 1999 PRA. Therefore, our conclusion that the Panel properly found Japan's risk assessment not to be sufficiently specific, does not limit an importing Member's right to adopt any appropriate "methodology", consistent with the definition of "risk assessment" in paragraph 4 of Annex A to the *SPS Agreement*.

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[381] Japan's appellant's submission, para. 128, quoting "Guidelines for Pest Risk Analysis", *International Standard for Phytosanitary Measures*, No.2 (Rome 1996), Food and Agriculture Organization of the United Nations; Exhibit JPN-30, submitted by Japan to the Panel; and "Pest Risk Analysis for Quarantine Pests", *International Standard for Phytosanitary Measures*, No.11 (Rome 2001), Food and Agriculture Organization of the United Nations; Exhibit USA-15, submitted by the United States to the Panel.

[382] For example, the *International Standard for Phytosanitary Measures*, No.2, states at page 14:

> The final stage of assessment concerns the introduction potential which depends on the pathways from the exporting country to the destination, and the frequency and quantity of pests associated with them. …
>
> The following is a partial checklist that may be used to estimate the introduction potential divided into those factors which may affect the likelihood of entry and those factors which may affect the likelihood of establishment.
>
> Entry:
> - opportunity for contamination of commodities or conveyances by the pest
>
> …
>
> Establishment:
> - number and frequency of consignments of the commodity
>
> …
>
> - intended use of the commodity
>
> …

(Exhibit JPN-30, submitted by Japan to the Panel, *supra*, footnote 381)

Similarly, the *International Standard for Phytosanitary Measures*, No.11, provides at pages 13-14:

> All relevant pathways should be considered. … Consignments of plants and plant products moving in international trade are the principal pathways of concern and existing patterns of such trade will, to a substantial extent, determine which pathways are relevant. Other pathways such as other types of commodities … should be considered where appropriate. …
>
> …
>
> Factors to consider are:
> - dispersal mechanisms, including vectors to allow movement from the pathway to a suitable host
> - whether the imported commodity is to be sent to a few or many destination points in the [pest risk analysis] area
>
> …
>
> - intended use of the commodity
>
> …

206. We therefore uphold the Panel's finding, in paragraph 8.271 of the Panel Report, that Japan's 1999 Pest Risk Analysis does not satisfy the definition of "risk assessment" in paragraph 4 of Annex A to the *SPS Agreement*, because it fails to evaluate the likelihood of entry, establishment or spread of fire blight specifically through apple fruit.

B. *Evaluating the Likelihood of Entry, Establishment or Spread of Fire Blight "According to the Sanitary or Phytosanitary Measures Which Might Be Applied"*

207. Japan also challenges the Panel's finding that Japan "has not … properly evaluated the likelihood of entry 'according to the SPS measures that might be applied'."[384] According to the Panel, the terms in the definition of "risk assessment" set out in paragraph 4 of Annex A to the *SPS Agreement*—more specifically, the phrase "according to the sanitary or phytosanitary measures which might be applied"—suggest that "consideration should be given not just to those specific measures which are currently in application, but at least to a potential range of relevant measures."[385] Japan acknowledged that it did not consider policies other than the measure already applied.[386] However, according to Japan, this "again relates to the matter of methodology", which is left to the discretion of the importing Member.[387]

208. The definition of "risk assessment" in the *SPS Agreement* requires that the evaluation of the entry, establishment or spread of a disease be conducted "according to the sanitary or phytosanitary measures which might be applied".[388] We agree with the Panel that this phrase "refers to the measures *which might* be applied, not merely to the measures which *are being* applied."[389] The phrase "which might be applied" is used in the conditional tense. In this sense, "might" means: "were or would be or have been able to, were or would be or have been allowed to, were or would perhaps".[390] We understand this phrase to imply that a risk assessment should not be limited to an examination of the measure already in place or favoured by the importing Member. In other words, the evaluation contemplated in paragraph 4 of Annex A to the *SPS Agreement* should not be distorted by preconceived views on the nature and the content of the measure to be taken; nor should

(Exhibit USA-15, submitted by the United States to the Panel, *supra*, footnote 381)

[383]See *supra*, footnote 382.

[384]Panel Report, para. 8.285. See Japan's appellant's submission, para. 133.

[385]Panel Report, para. 8.285.

[386]Japan's response to questioning at the oral hearing.

[387]Japan's appellant's submission, para. 133.

[388]Annex A to the *SPS Agreement*, para. 4.

[389]Panel Report, para. 8.283. (original italics)

[390]*Shorter Oxford English Dictionary*, 5th ed., W.R. Trumble, A. Stevenson (eds.) (Oxford University Press, 2002), Vol. I, p. 1725.

it develop into an exercise tailored to and carried out for the purpose of justifying decisions *ex post facto*.

209. In this case, the Panel found that the 1999 PRA dealt exclusively with the " 'plant quarantine measures against *E. amylovora* concerning US fresh apple fruit', which have been taken by Japan based on the proposal by the US government since 1994".[391] The Panel also found that, in the 1999 PRA, no attempts were made "to assess the 'relative effectiveness' of the various individual requirements applied, [that] the assessment appears to be based on the assumption from the outset that all these measures would apply cumulatively"[392], and that no analysis was made "of their relative effectiveness and whether and why all of them in combination are required in order to reduce or eliminate the possibility of entry, establishment or spread of the disease."[393] Moreover, the Panel referred to "the opinions of Dr Hale and Dr Smith that the 1999 PRA 'appeared to prejudge the outcome of its risk assessment' and that 'it was principally concerned to show that each of the measures already in place was effective in some respect, and concluded that all should therefore be applied'."[394] In our opinion, these findings of fact of the Panel leave no room for doubt that the 1999 PRA was designed and conducted in such a manner that *no* phytosanitary policy other than the regulatory scheme *already in place* was considered. Accordingly, we uphold the Panel's finding, in paragraph 8.285 of the Panel Report, that "Japan has not … properly evaluated the likelihood of entry 'according to the SPS measures that might be applied'."

C. *Consideration of Scientific Evidence Arising Subsequent to the Risk Assessment at Issue*

210. Finally, Japan argues that "Japan's PRA *was* consistent with Article 5.1 of the SPS Agreement at the time of the analysis, because conformity of a risk assessment with Article 5.1 should be assessed against the information available at the time of the risk assessment."[395] According to Japan, a risk assessment should be evaluated solely against the evidence available at the time of the risk assessment, such that a Member that fulfils the requirement of a risk assessment when adopting a measure is not held to have acted inconsistently with Article 5.1 upon the discovery of subsequently-published scientific evidence.[396]

[391]Panel Report, para. 8.284, quoting 1999 PRA, § 3-1. Japan confirmed, in response to questioning at the oral hearing, that the 1999 PRA considered no phytosanitary measure other than the one in place.

[392]Panel Report, para. 8.288.

[393]*Ibid.*

[394]*Ibid.*, para. 8.289. (footnotes omitted)

[395]Japan's appellant's submission, para. 135. (original italics)

[396]*Ibid.*, para. 135.

211. During the oral hearing, we invited Japan to identify what evidence, arising subsequent to the 1999 PRA, had been relied upon by the Panel in evaluating Japan's risk assessment under Article 5.1. Japan was unable to point to any such evidence. We also asked the participants what the legal consequence would be for the Panel's finding under Article 5.1 if we found, as Japan requests, that the Panel was not permitted to examine evidence post-dating the 1999 PRA. The United States suggested that there would be no consequence for this dispute because the risk assessment was "inadequate" at the time it was completed.[397] Nor did Japan identify any consequence of such a finding on our part.

212. The Panel concluded that Japan's measure could not be "based on" a risk assessment, as required by Article 5.1, because the 1999 PRA did not satisfy the definition of "risk assessment" set out in paragraph 4 of Annex A to the *SPS Agreement*.[398] The Panel determined that the definition of "risk assessment" was not satisfied because the 1999 PRA failed to meet the two elements discussed above, namely, that a risk assessment (i) "evaluate the likelihood of entry, establishment or spread of" the plant disease at issue, and (ii) conduct such evaluation "according to the SPS measures which might be applied".[399]

213. As we see it, Japan was unable to identify any scientific evidence relied upon by the Panel, but published after the issuance of the 1999 risk assessment, because the Panel did not, in fact, base its finding on such evidence. The Panel's analysis focused almost exclusively on the risk assessment itself to determine whether the 1999 PRA satisfied the legal requirements the Panel found in the *SPS Agreement*. The Panel identified those requirements as the need to assess a risk with a certain degree of "specificity", to evaluate probability rather than possibilities, and to evaluate the likelihood of entry "according to the sanitary or phytosanitary measures which might be applied".[400] Beyond the text of the 1999 PRA, the only scientific information relied upon by the Panel relates to its finding on "specificity": on this point, the Panel determined that "scientific evidence submitted by both parties leaves no doubt that the risk of introduction and spread of the disease varies considerably according to the host plant".[401] From this finding of fact, the Panel concluded that Japan's risk assessment was not "sufficiently specific to the matter at issue" because it did not examine the risk in relation to apple fruit in particular.[402]

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[397]The United States' response to questioning at the oral hearing.

[398]Panel Report, paras. 8.290-8.291.

[399]*Ibid.*, paras. 8.280, 8.285, and 8.288.

[400]See, for example, *ibid.*, paras. 8.268, 8.270-8.271, 8.274-8.278, 8.284, and 8.287-8.288.

[401]*Ibid.*, para. 8.271.

[402]*Ibid.*

214. In stating that its finding of fact was based on "scientific evidence submitted by both parties", the Panel did not cite those studies or provide any indication of whether those studies dated from before or after Japan's risk assessment. Japan does not assert that this scientific evidence, or any other scientific evidence underlying the Panel's conclusion with respect to Article 5.1, was not available to Japan at the time of the risk assessment. We also note that the Panel record includes relevant scientific evidence adduced by both parties that arose *before* Japan's risk assessment.[403] Such evidence could have reasonably formed the basis for the Panel's conclusion that the risk from fire blight varies according to the host plant. Under these circumstances, we are not persuaded that, when analyzing the conformity of the 1999 PRA with Japan's obligations under Article 5.1, the Panel relied on scientific evidence that was not available to Japan at the time it conducted its risk assessment.

215. As Japan failed to establish that the Panel utilized subsequent scientific evidence in evaluating the risk assessment at issue, it is not necessary for us to express views on the question whether the conformity of a risk assessment with Article 5.1 should be evaluated solely against the scientific evidence available at the time of the risk assessment, to the exclusion of subsequent information. Resolution of such hypothetical claims would not serve "to secure a positive solution" to this dispute.[404]

216. Accordingly, we uphold the Panel's finding, in paragraph 8.290 of the Panel Report, that Japan's 1999 Pest Risk Analysis does not satisfy the definition of "risk assessment" set out in paragraph 4 of Annex A to the *SPS Agreement* because it (i) fails to "evaluate the likelihood of entry, establishment or spread of" the plant disease at issue, and (ii) fails to conduct such an evaluation "according to the SPS measures which might be applied". Furthermore, as the 1999 PRA is not a "risk assessment" within the meaning of the *SPS Agreement*, it follows, as the Panel found, in paragraphs 8.291 and 9.1(c) of the Panel Report, that Japan's phytosanitary measure at issue is not "based on" a risk assessment, as required by Article 5.1 of the *SPS Agreement*.

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[403]See, for example, R.G. Roberts *et al.*, "The potential for spread of *Erwinia amylovora* and fire blight via commercial apple fruit; a critical review and risk assessment", *Crop Protection* (1998), Vol. 17, No. 1, pp. 19-28, at p. 24; Exhibit JPN-5, submitted by Japan to the Panel and Exhibit USA-4, submitted by the United States to the Panel; T. van der Zwet *et al.*, "Population of *Erwinia amylovora* on External and Internal Apple Fruit Tissues", *Plant Disease* (1990), Vol. 74, No. 9, pp. 711-716, at p. 711; Exhibit JPN-7, submitted by Japan to the Panel; and S.V. Thomson, "Fire blight of apple and pear", *Diseases of Fruit Crops* (J. Kumar *et al.*, eds.), Vol. 3, pp. 32-65, § 2-1 at p. 32 and § 2-9-2 at p. 49; Exhibit USA-44, submitted by the United States to the Panel.

[404]Article 3.7 of the DSU.

X. Article 11 of the DSU

217. Japan raises two challenges under Article 11 of the DSU related to the Panel's fact-finding: one relates to the Panel's analysis under Article 2.2 of the *SPS Agreement*, and the other relates to the Panel's analysis under Article 5.1 of that Agreement. In Section IV of this Report, we found that the Article 11 challenge relating to the Panel's analysis under Article 5.1 was not sufficiently identified in Japan's Notice of Appeal to place the United States on notice thereof.[405] We found that the challenge relating to Article 5.1 was not properly before us, and we therefore declined to rule on it. We thus examine below only Japan's challenge to the Panel's fact-finding under Article 2.2 of the *SPS Agreement*.

218. With respect to Article 2.2 of the *SPS Agreement*, Japan challenges the Panel's analysis of the likelihood that the pathway of transmission for fire blight from apple fruit to other plants would be completed. In particular, Japan contests the Panel's finding that "it has not been established with sufficient scientific evidence that the last stage of the pathway (i.e. the transmission of fire blight to a host plant) would likely be completed."[406] The Panel made this finding of fact on the last stage of the pathway with respect to apple fruit, which includes mature, symptomless apples as well as apples that are not mature and symptomless. According to Japan, the Panel, in its analysis, made certain errors when evaluating the relevant scientific evidence, each of which constitutes a failure on the part of the Panel to "make an objective assessment of the facts of the case" under Article 11 of the DSU. The errors alleged by Japan are the following:

(i) that the Panel made a "material" factual error in its characterization of the experimental evidence underlying the Panel's conclusion that fire blight was not likely to be transmitted to other plants[407];

(ii) that the Panel arrived at a conclusion that covered infected apple fruit, when the evidence before it "centered around" mature, symptomless apple fruit[408];

(iii) that the Panel failed to take into account the "precautionary principle", or the caution emphasized by the Panel's experts, in arriving at its conclusion on the likelihood of completion of the pathway[409]; and

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[405]See *supra*, paras. 127-128.

[406]Panel Report, para. 8.168.

[407]Japan's appellant's submission, paras. 52-54.

[408]*Ibid.*, para. 51.

[409]*Ibid.*, paras. 64-70.

(iv) that the Panel's conclusion on the likelihood of completion of the pathway is inconsistent with the Panel's recognition that the risk identified by the experts was not merely a "theoretical risk".[410]

219. The United States disagrees with Japan's Article 11 challenge to the extent that it applies to mature, symptomless apples, and contends that the Panel had no authority to make findings on apple fruit other than mature, symptomless apples. The United States argues that Japan essentially challenges the Panel's characterization and weighing of the evidence, effectively seeking to compel a Panel finding on completion of the pathway where the record contains no evidence to support such a finding. In the light of the "high standard" that must be met to succeed on a claim under Article 11, the United States submits that Japan's claim should be rejected with respect to mature, symptomless apples.[411]

220. We begin by noting that Article 11 of the DSU requires that a panel, *inter alia*:

> … make an objective assessment of the matter before it, including an objective assessment of the facts of the case and the applicability of and conformity with the relevant covered agreements, and make such other findings as will assist the DSB in making the recommendations or in giving the rulings provided for in the covered agreements.

221. In the first appeal presenting an Article 11 challenge to a Panel's fact-finding[412], *EC – Hormones*, the Appellate Body identified the "duty to make an objective assessment of the facts [as], among other things, an obligation to consider the evidence presented to a panel and to make factual findings on the basis of that evidence."[413] In *EC – Hormones*, the Appellate Body observed further that the:

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[410]*Ibid.*, paras. 60-63.

[411]United States' appellee's submission, para. 10.

[412]Prior to *EC – Hormones*, an Article 11 claim was raised on appeal in *US – Wool Shirts and Blouses*, but that claim addressed solely "whether Article 11 of the *DSU* entitles a complaining party to a finding on each of the legal claims it makes to a panel". (Appellate Body Report, p. 17, DSR 1997:I, 323, at 338) As such, the claim did not challenge the panel's "assessment of the facts of the case". In addition, in *Canada – Periodicals*, the appellant raised Article 11 when challenging the panel's reliance on a "hypothetical example" to make a determination of "like products" under Article III:2 of the GATT 1994. (Appellate Body Report, p. 5, DSR 1997:I, 449, at 452) The Appellate Body, however, made no ruling as to Article 11. (*Ibid.*, pp. 20-23, DSR 1997:I, 449, at 465-468)

[413]Appellate Body Report, para. 133.

> [d]etermination of the credibility and weight properly to be ascribed to (that is, the appreciation of) a given piece of evidence is part and parcel of the fact finding process and is, in principle, left to the discretion of a panel as the trier of facts.[414]

Since *EC – Hormones*, the Appellate Body has consistently emphasized that, within the bounds of their obligation under Article 11 to make an objective assessment of the facts of the case, panels enjoy a "margin of discretion" as triers of fact.[415] Panels are thus "not required to accord to factual evidence of the parties the same meaning and weight as do the parties"[416] and may properly "determine that certain elements of evidence should be accorded more weight than other elements".[417]

222. Consistent with this margin of discretion, the Appellate Body has recognized that "not every error in the appreciation of the evidence (although it may give rise to a question of law) may be characterized as a failure to make an objective assessment of the facts."[418] When addressing claims under Article 11 of the DSU, the Appellate Body does not "second-guess the Panel in appreciating either the evidentiary value of … studies or the consequences, if any, of alleged defects in [the evidence]".[419] Indeed:

> [i]n assessing the panel's appreciation of the evidence, we cannot base a finding of inconsistency under Article 11 simply on the conclusion that we might have reached a different factual finding from the one the panel reached. Rather, we must be satisfied that the panel has exceeded the bounds of its discretion, as the trier of facts, in its appreciation of the evidence.[420]

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[414] *Ibid.*, para. 132.

[415] Appellate Body Report, *EC – Asbestos*, para. 161. See also, for example, Appellate Body Report, *EC – Tube or Pipe Fittings*, para. 125; Appellate Body Report, *EC – Bed Linen (Article 21.5 – India)*, paras. 170, 177, and 181; Appellate Body Report, *EC – Sardines*, para. 299; Appellate Body Report, *Korea – Alcoholic Beverages*, paras. 161-162; Appellate Body Report, *Japan – Agricultural Products II*, paras. 141-142; Appellate Body Report, *US – Wheat Gluten*, para. 151; Appellate Body Report, *Australia – Salmon*, para. 266; and Appellate Body Report, *Korea – Dairy*, para. 138.

[416] Appellate Body Report, *Australia – Salmon*, para. 267.

[417] Appellate Body Report, *EC – Asbestos*, para. 161.

[418] Appellate Body Report, *EC – Hormones*, para. 133.

[419] Appellate Body Report, *EC – Asbestos*, para. 177, quoting Appellate Body Report, *Korea – Alcoholic Beverages*, para. 161.

[420] Appellate Body Report, *EC – Asbestos*, para. 159, quoting Appellate Body Report, *US – Wheat Gluten*, para. 151.

Where parties challenging a panel's fact-finding under Article 11 have failed to establish that a panel exceeded the bounds of its discretion as the trier of facts, the Appellate Body has not "interfere[d]" with the findings of the panel.[421]

A. *The Panel's Characterization of Experimental Evidence*

223. Japan first challenges a "factual error" in one of the statements offered as support for the Panel's finding on the completion of the last stage of the pathway for apple fruit.[422] Japan points to the following statement of the Panel:

> We note that experiments trying to reproduce the conditions applicable to discarded apples have not led to any visible contamination, even when ooze was reported to exist.[423] (footnote omitted)

According to Japan, the experiments referred to by the Panel used inoculated apples, not naturally infected apples. Japan advances that ooze has not been reported in inoculated apples.[424] In Japan's submission, therefore, the above statement is an erroneous characterization of the underlying scientific studies.[425]

224. We observe that the Panel made this statement in support of its finding of fact that it has not been established with sufficient scientific evidence that the last stage of the pathway (that is, the transmission of fire blight from imported apples to a host plant) would likely be completed.[426] The Panel also formulated this finding of fact in these terms:

> [A]ssuming that [a situation of infected apples or infested apples] would arise, the entry, establishment or spread of the disease as a result of the presence of these bacteria in or on apple fruit would require the completion of an additional sequence of events which is deemed unlikely, and which has not even been experimentally established to date.[427]

In addition to the studies cited by the Panel, the characterization of which Japan contests, the Panel referenced the following evidence to substantiate this finding of fact: (i) the "number of cumulative

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[421]Appellate Body Report, *EC – Bed Linen (Article 21.5 – India)*, para. 170; Appellate Body Report, *US – Carbon Steel*, para. 142, quoting Appellate Body Report, *US – Wheat Gluten*, para. 151.

[422]Japan's appellant's submission, para. 52.

[423]Panel Report, para. 8.166.

[424]Japan's appellant's submission, para. 52.

[425]*Ibid.*

[426]Panel Report, para. 8.168.

[427]*Ibid.*, para. 8.171(d).

conditions" identified by the experts for a successful completion of the pathway[428]; (ii) the observation by the experts that contamination by birds had not been established[429]; (iii) to the extent that the experts found "short distance communication" to be possible through rain or bees, this finding "related to contamination at the flowering stage, not to contamination from apple fruit"[430]; and (iv) "[t]he evidence submitted by Japan was essentially circumstantial or deemed unconvincing by the experts."[431] In the light of the other factual material relied upon by the Panel, including its express consideration and discounting of scientific evidence submitted by Japan, we cannot find that the Panel has exceeded its "margin of discretion"[432] in evaluating the relevant evidence before it, to call into question the Panel's finding in relation to the last stage of the pathway. Accordingly, Japan has failed to establish that the Panel did not satisfy the obligations of Article 11 so as to justify our interference with a panel's finding of fact.

B. *Evidence "Centered Around" Mature, Symptomless Apple Fruit*

225. We turn now to the next aspect of Japan's claim under Article 11 of the DSU—that the Panel acted inconsistently with its obligations thereunder in making findings that covered the completion of the pathway for transmission of fire blight by "infected" apple fruit, because the evidence before the Panel "centered around" the pathway with respect to mature, symptomless fruit.[433] In other words, Japan submits that there is a lack of connection between the evidence considered by the Panel and its findings on the completion of the last stage of the pathway for transmission of fire blight.

226. As we have just observed, the Panel found that the additional sequence of steps required for completion of the pathway from apple fruit to other host plants would be unlikely to occur.[434] The finding of the Panel covered both the pathway for mature, symptomless apples and that for apples other than mature, symptomless apple fruit. In our view, the Panel did not err in making this finding. However, the Panel's reasoning was perhaps not sufficiently explicit, with the result that Japan deduced that the Panel had failed to make an objective assessment of the facts before it on completion of the last stage of the pathway.

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[428]*Ibid.*, para. 8.166, quoting *ibid.*, paras. 6.70 (Dr. Hayward) and 6.71 (Dr. Smith).

[429]*Ibid.*, para. 8.166, citing paras. 241 (Dr. Smith) and 263 (Dr. Geider) of Annex 3 thereto.

[430]Panel Report, para. 8.166.

[431]*Ibid.*, para. 8.167.

[432]Appellate Body Report, *EC – Sardines*, para. 299, quoting Appellate Body Report, *EC – Asbestos*, para. 161.

[433]Japan's appellant's submission, para. 51.

[434]*Supra*, para. 224, quoting Panel Report, para. 8.171(d).

227. Specifically, it might have been helpful had the Panel been more precise about the scope of its factual analysis. We recall that the Panel made the following findings: (i) infection of mature, symptomless apples has not been established; (ii) the presence of endophytic bacteria in mature, symptomless apples is not generally established; (iii) the presence of epiphytic bacteria in mature, symptomless apples is not excluded, but is considered to be extremely rare; and (iv) infection or infestation of apples other than mature, symptomless apple fruit is not contested.[435] These findings imply that the factual analysis as regards the completion of the last stage of the pathway with respect to mature, symptomless apples does not need to include the hypothesis of the importation of infected apples to Japan, as, according to the Panel, "infection of mature, symptomless apples has not been established".[436] By contrast, the factual analysis concerning the completion of the last stage of the pathway with respect to apples other than mature, symptomless apple fruit, *is* required to address the hypothesis of the importation of infected apples to Japan, as, in the view of the Panel, infection of immature apple fruit is not contested.

228. The Panel could also have been more precise about the respective responsibilities of the parties for providing proof of a fact. In connection with the *prima facie* case it had to establish, the United States made allegations of fact that the last stage of the pathway would not be completed as regards mature, symptomless apples.[437] The United States was responsible for proving these allegations of fact by reason of the principle set out in *US – Wool Shirts and Blouses* that the party "who asserts a fact … is responsible for providing proof thereof."[438] For its part, Japan, in the context of its attempts to counter the case put forward by the United States, made allegations of fact relating to the completion of the last stage of the pathway with respect to infected apples.[439] Given the Panel's finding of fact that it is unlikely that mature, symptomless apples would be infected, it can be reasonably assumed that any infected apples exported to Japan would be apples other than mature, symptomless apple fruit. Under the principle set out in *US – Wool Shirts and Blouses*, it was thus for Japan, and not the United States, to provide proof of these allegations of fact relating to infected apples.

229. Having said that the Panel could have been clearer on these two aspects of its reasoning, we nevertheless disagree with Japan that the Panel acted inconsistently with its obligations under Article 11 of the DSU in making a finding that covered the completion of the pathway for

[435]Panel Report, para 8.171.

[436]*Ibid.*, para 8.171(a).

[437]See, for example, Panel Report, paras. 4.82(d) and 4.83.

[438]Appellate Body Report, p. 14, DSR 1997:I, 323, at 335.

[439]See, for example, Panel Report, para. 4.84.

transmission of fire blight by "infected" apple fruit, even though the evidence before the Panel "centered around" the pathway with respect to mature, symptomless apple fruit.

230. The Panel agreed with the United States that, as regards mature, symptomless apples, the completion of the last stage of the transmission of fire blight is unlikely.[440] The Panel referred to various pieces of evidence in support of this conclusion.[441] The evidence identified focused on mature, symptomless apples and, therefore, supported the finding that completion of the last stage of the transmission of fire blight was unlikely, to the extent that this finding concerns mature, symptomless apples.

231. As regards apples other than mature, symptomless apple fruit, the Panel assumed, correctly, that Japan had the responsibility of providing proof of its allegations of fact, namely that fire blight could be transmitted from an infected apple to a host plant. We understand the Panel to have dealt with these allegations of fact from Japan when it said that "[t]he evidence submitted by Japan was essentially circumstantial or deemed unconvincing by the experts", and that "Japan did not submit sufficient scientific evidence in support of its allegation that the last step of the pathway had been completed or was likely to be completed."[442] We understand the Panel's conclusions to cover infected apples, as Japan made allegations of fact and brought evidence on such apples.[443] Accordingly, we see no lack of connection between the overall evidence that the Panel considered and the findings it made with respect to the last stage of the pathway for transmission of fire blight. Therefore, we are of the view that the Panel did not act inconsistently with its obligations under Article 11 of the DSU.

C. *Experts' Statements of Caution*

232. Japan's third challenge under Article 11 of the DSU is premised on the Panel's alleged failure to take into account adequately the "precautionary principle". Japan bases this challenge on the fact that the Panel did not take into account "the need of caution emphasized by the experts" with respect to the phytosanitary measure aimed at preventing the entry of fire blight into Japan.[444] Based on what Japan understands to be the experts' recognition that the risk of harm from the introduction of fire blight results in a "general need [for] prudence", Japan argues that the Panel "should have recognized the risk of completion of the pathway from infected apple fruit."[445]

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[440]Panel Report, para. 8.171.

[441]*Ibid.*, para. 8.166.

[442]*Ibid.*, para. 8.167.

[443]*Ibid.*, para. 4.84.

[444]Japan's appellant's submission, paras. 64 and 70.

[445]*Ibid.*, paras. 68-69.

233. In *EC – Hormones*, the Appellate Body noted that the "precautionary principle" had not yet attained "authoritative formulation" outside the field of international environmental law[446], but that it remained relevant in the context of the *SPS Agreement*, particularly as recognized in certain provisions of that Agreement.[447] However, the Appellate Body found that the "precautionary principle" did not release Members from their WTO obligations and, as such, did not "override the provisions of Articles 5.1 and 5.2 of the *SPS Agreement*."[448]

234. Japan does not argue that the Panel should have applied the "precautionary principle" as a principle separate and distinct from the provisions of the *SPS Agreement*. Nor does Japan argue that the "precautionary principle" should have been employed by the Panel as part of its interpretive analysis of the requirements of the *SPS Agreement*. Rather, we understand Japan to contend that the "precautionary principle" was embodied in the opinions of the experts cautioning against elimination of phytosanitary measures protecting Japan from fire blight; and that, accordingly, such caution "should have been given greater weight in the conclusion of the Panel on completion of the pathway."[449] Japan's argument, therefore, is aimed solely at the Panel's consideration of the evidence before it.

235. As an initial matter, we note that Japan relies primarily on statements from two experts and on the fact that the other experts did not object to these views.[450] The first expert cited by Japan observed that:

> … when the phytosanitary system is changed it should be changed under circumstances that retain some degree of control on what is happening and not in a single step that *removes control altogether*.[451] (emphasis added)

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[446]Appellate Body Report, para. 123.

[447]Appellate Body Report, para. 124.

[448]*Ibid.*, para. 125.

[449]Japan's appellant's submission, para. 69.

[450]*Ibid.*, paras. 67-68.

[451]*Ibid.*, para. 67, quoting Annex 3 to the Panel Report, para. 423 (Dr. Smith).

The second expert cited by Japan observed as follows:

> [A] decision to *remove most restrictions* for importation of apples from fire blight countries should consider that the Japanese apple production is highly sophisticated following a demand for high quality apples. Import of any grade of apple quality to Japan such as low quality at a cheap price could undermine the control of disease problems regardless to the low risk to distribute fire blight with apples.[452] (emphasis added)

236. The concerns articulated by these experts thus address the consequences associated with eliminating *all* or *most* controls over imports, combined with the importation of poor-grade apples. These concerns do *not* speak about whether the pathway for transmission of fire blight could be completed. Indeed, the same experts cited by Japan as promoting a cautious approach[453], Dr. Ian Smith and Dr. Klaus Geider, also expressed the opinion before the Panel that the completion of the pathway was unlikely.[454] It is therefore difficult to see how the Panel's conclusion that completion of the last stage of the pathway for apple fruit (whether "mature, symptomless" or otherwise) would be unlikely, is necessarily inconsistent with or undermined by the caution expressed by the experts.

237. Furthermore, the Panel itself made reference to the experts' note of caution:

> [W]e note that even if the scientific evidence before us demonstrates that apple fruit is highly unlikely to be a pathway for entry, establishment and spread of fire blight within Japan, it does suggest that some slight risk of contamination cannot be totally excluded. … [N]one of the experts were comfortable with the notion of eliminating "in one step" all phytosanitary controls, taking into account Japan's island environment and climate.[455] (footnote omitted)

As such, contrary to Japan's assertion, the Panel did explicitly "tak[e] into account"[456] the experts' cautionary statements, but understood properly that those statements focused on an issue different from the likelihood of completion of the last stage of the pathway for transmission of fire blight from

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[452]Japan's appellant's submission, para. 67, quoting Dr. Geider's written response to questions posed by the Panel, 10 December 2002, p. 8. See also, Panel Report, para. 6.175.

[453]Japan's appellant's submission, para. 67.

[454]Panel Report, para. 6.71, and paras. 241 (Dr. Smith) and 263 (Dr. Geider) of Annex 3 thereto.

[455]*Ibid.*, para. 8.173, citing paras. 386, 389, 409, 411, 413-414, 419, 423-424, 426, and 429 of Annex 3 thereto.

[456]Japan's appellant's submission, para. 70.

apple fruit. Accordingly, the Panel did not err in refusing to "recognize[] the risk of completion of the pathway from infected apple fruit"[457] on the basis of the experts' statements of caution.

238. In any event, we note that Japan essentially disagrees with the Panel's appreciation of the evidence, and in particular, its appreciation of the experts' expressions of caution. As Japan states in its appellant's submission, "[t]he impact of these expressions of scientific caution, clearly on the record, *should have been given greater weight* in the conclusion of the Panel on completion of the pathway."[458] In *EC – Sardines* and in *EC – Hormones*, the Appellate Body said that:

> [d]etermination of the credibility and weight properly to be ascribed to (that is, the appreciation of) a given piece of evidence is part and parcel of the fact finding process and is, in principle, left to the discretion of a panel as the trier of facts.[459]

Although a panel's discretion is necessarily circumscribed by its duty to render an objective assessment of the facts of the case, Japan has proffered no argument challenging the objectivity of the Panel's assessment. Therefore, in our view, even if the Panel did not give as much weight as Japan would have liked to the experts' statements of caution with respect to modifications to Japan's phytosanitary measure, Japan has failed to establish that, in doing so, the Panel exceeded the bounds of its discretion as the trier of facts.

D. *Completion of the Pathway and "Theoretical Risk"*

239. Japan's final Article 11 claim alleges an inconsistency in the Panel's fact-finding that renders its analysis of the pathway for transmission of fire blight through apple fruit inconsistent with its obligation to make an "objective assessment of the facts of the case". The Panel noted that "none of the experts were comfortable with the notion of eliminating 'in one step' all phytosanitary controls, taking into account Japan's island environment and climate."[460] The United States had argued that the experts' prudence in this regard amounted to a "theoretical risk", which, as the Appellate Body observed in *EC – Hormones*, was not intended to be the subject of a risk assessment under the *SPS Agreement*.[461] The Panel disagreed with the United States, saying:

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[457]*Ibid.*, para. 69.

[458]*Ibid.* (emphasis added; footnote omitted)

[459]Appellate Body Report, *EC – Sardines*, para. 300; Appellate Body Report, *EC – Hormones*, para. 132.

[460]Panel Report, para. 8.173, quoting Annex 3 thereto, para. 419, and citing paras. 386, 389, 409, 411, 413-414, 423-424, 426 and 429 thereof.

[461]*Ibid.*, para. 8.175.

> We do not agree with the United States that the scientific prudence displayed by the experts should be completely assimilated to a "theoretical risk" within the meaning given to that terms by the Appellate Body in *EC – Hormones*. On the other hand, we can only note that Japan did not submit "sufficient scientific evidence" in support of its allegation that the pathway could be completed.[462]

Japan contends that the Panel's rejection of the United States' argument that the experts' prudence constituted a " 'theoretical risk' implies that the risk from infected apple fruit is *real*, and that the entire pathway could be completed".[463] As such, in Japan's view, this implicit finding is incompatible with the Panel's ultimate finding that the pathway from apple fruit was unlikely to be completed.[464]

240. The Panel made the finding of fact that "scientific evidence suggests a negligible risk of possible transmission of fire blight through apple fruit."[465] On the basis of this finding of fact, the Panel concluded that the measure is "clearly disproportionate to the risk identified"[466] and, consequently, that the measure is maintained without sufficient scientific evidence. The conclusion of the Panel that the measure is maintained without sufficient scientific evidence rests on the finding of fact of "a negligible risk of possible transmission of fire blight through apple fruit"[467]; it has no relation to the Panel's rejection of the United States' argument that the experts' prudence constituted a "theoretical risk".

241. The comments of the Panel in response to the argument of the United States on "theoretical risk" should be viewed in their appropriate context. In *EC – Hormones*, the Appellate Body referred to the notion of "theoretical uncertainty" in the context of Article 5.1 of the *SPS Agreement*. The Appellate Body indicated that Article 5.1 does not address theoretical uncertainty, that is to say, "uncertainty that theoretically always remains since science can *never* provide *absolute* certainty that a given substance will not *ever* have adverse health effects."[468] We understand that the "scientific prudence" displayed by the experts in this case related to the risks that might arise from radical changes in Japan's current system of phytosanitary controls, taking into account Japan's island

[462] *Ibid.*

[463] Japan's appellant's submission, para. 61 (original italics), quoting Panel Report, para. 8.175.

[464] Japan's appellant's submission, paras. 60-61.

[465] Panel Report, para. 8.169.

[466] *Ibid.*, para. 8.198.

[467] *Ibid.*, para. 8.169.

[468] Appellate Body Report, *EC – Hormones*, para. 186. (original italics)

environment and climate.[469] The scientific prudence displayed by the experts did not relate to the "theoretical uncertainty" that is inherent in the scientific method and which stems from the intrinsic limits of experiments, methodologies, or instruments deployed by scientists to explain a given phenomenon. Therefore, we agree with the Panel that the scientific prudence displayed by the experts should not be "completely assimilated" to the "theoretical uncertainty" that the Appellate Body discussed in *EC – Hormones* as being beyond the purview of risks to be addressed by measures subject to the *SPS Agreement*. Nevertheless, contrary to Japan's understanding, that scientific prudence does not undermine the finding of negligibility of the risk of possible transmission of fire blight through apple fruit: indeed, the experts' scientific prudence is related to a different question, namely, the hypothetical scenario of future changes in Japan's regulatory environment.[470] Accordingly, we disagree with Japan that the Panel's rejection of the United States' argument on " 'theoretical risk' implies that the risk from infected apple fruit is *real*, and that the entire pathway could be completed".[471] In our view, the Panel, in rejecting the United States' argument on "theoretical risk", while at the same time finding that the risk of transmission of fire blight through apple fruit is "negligible"[472], did not act inconsistently with Article 11 of the DSU.

242. We therefore find that the Panel did not act inconsistently with Article 11 of the DSU, with respect to its analysis of the United States' claim under Article 2.2 of the *SPS Agreement*.

XI. Findings and Conclusions

243. For the reasons set out in this Report, the Appellate Body:

(a) finds that the Panel had the "authority" to make findings and draw conclusions with respect to all apple fruit from the United States, including immature apples;

(b) upholds the Panel's findings, in paragraphs 8.199 and 9.1(a) of the Panel Report, that Japan's phytosanitary measure at issue is maintained "without sufficient scientific evidence" within the meaning of Article 2.2 of the *SPS Agreement*;

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[469]We find support for this understanding of "scientific prudence" in the Panel's references to the experts' views on the removal of controls, which references immediately precede the Panel's finding that the experts' "scientific prudence" could not be "completely assimilated" to a "theoretical risk". (See Panel Report, paras. 8.173-8.174) These statements of the experts, therefore, are the same as those emphasized by Japan in our earlier discussion as statements of caution that should have been given greater weight in the Panel's analysis. (See *supra*, paras. 235-236)

[470]We express no view on the changes to Japan's phytosanitary measure that might be required to bring it into conformity with Japan's WTO obligations, nor do we speak to any other issue related to the means of implementation of the possible rulings and recommendations of the DSB in this dispute.

[471]Japan's appellant's submission, para. 61. (original italics)

(c) upholds the Panel's findings, in paragraphs 8.222 and 9.1(b) of the Panel Report, that Japan's phytosanitary measure at issue was not imposed in respect of a situation "where relevant scientific evidence is insufficient", and, therefore, that it is not a provisional measure justified under Article 5.7 of the *SPS Agreement*;

(d) upholds the Panel's findings, in paragraphs 8.271, 8.285, and 8.290 of the Panel Report, that Japan's 1999 Pest Risk Analysis does not satisfy the definition of "risk assessment" set out in paragraph 4 of Annex A to the *SPS Agreement* because it (i) fails to "evaluate the likelihood of entry, establishment or spread of" the plant disease at issue, and (ii) fails to conduct such an evaluation "according to the SPS measures which might be applied". Consequently, the Appellate Body upholds the Panel's findings, in paragraphs 8.291 and 9.1(c) of the Panel Report, that Japan's phytosanitary measure at issue is not "based on" a risk assessment, as required by Article 5.1 of the *SPS Agreement*;

(e) finds that the Panel did not act inconsistently with Article 11 of the DSU, with respect to its analysis of the United States' claim under Article 2.2 of the *SPS Agreement*; and

(f) finds that the issue of the Panel's compliance with Article 11 of the DSU, with respect to its analysis of the United States' claim under Article 5.1 of the *SPS Agreement*, was not raised by Japan in its Notice of Appeal and therefore is not properly before the Appellate Body in this appeal. Consequently, the Appellate Body does not rule on this issue.

244. The Appellate Body therefore recommends that the Dispute Settlement Body request Japan to bring its measure, found in this Report, and in the Panel Report as upheld by this Report, to be inconsistent with its obligations under the *SPS Agreement*, into conformity with that Agreement.

[472]Panel Report, para. 8.169.

Signed in the original at Geneva this 12th day of November 2003 by:

John Lockhart
Presiding Member

Luiz Olavo Baptista	Giorgio Sacerdoti
Member	Member

ANNEX A

WORLD TRADE ORGANIZATION

WT/DS245/5
28 August 2003

(03-4543)

Original: English

JAPAN – MEASURES AFFECTING THE IMPORTATION OF APPLES

Notification of an Appeal by Japan
under paragraph 4 of Article 16 of the Understanding on Rules
and Procedures Governing the Settlement of Disputes (DSU)

The following notification, dated 28 August 2003, sent by Japan to the Dispute Settlement Body (the "DSB"), is circulated to Members. This notification also constitutes the Notice of Appeal, filed on the same day with the Appellate Body, pursuant to the *Working Procedures for Appellate Review*.

Pursuant to Article 16 of the Understanding on Rules and Procedures Governing the Settlement of Disputes ("DSU") and Rule 20 of the Working Procedures for Appellate Review, Japan hereby notifies its decision to appeal to the Appellate Body certain issues of law covered in the Panel Report on Japan-Measures Affecting the Importation of Apples (WT/DS245/R, dated 15th July 2003) and certain legal interpretations developed by the Panel.

Japan seeks review by the Appellate Body of the conclusions of the Panel that Japan's phytosanitary measure on the United States apples is inconsistent with the Agreement on the Application of Sanitary and Phytosanitary Measures ("SPS Agreement"). These findings are in error, and are based on erroneous findings on issues of law and related legal interpretations. The Appeal relates to the following issues:

1. The Panel erred in law in finding that Japan acted inconsistently with its obligations under Article 2.2 of the SPS Agreement. This finding reflects the Panel's erroneous interpretation of the rule of burden of proof, and the Panel's failure to make an objective assessment of the matter before it under Article 11 of the DSU.

2. The Panel erred in law in finding that Japan's phytosanitary measure was inconsistent with the requirements under Article 5.7 of the SPS Agreement. This finding is based on an erroneous interpretation of the requirements under Article 5.7.

3. The Panel erred in law in finding that Japan's phytosanitary measure was not based on a risk assessment within the meaning of Article 5.1 of the SPS Agreement. This finding is based on an erroneous interpretation of the requirements of a risk assessment under Article 5.1.