Japan – Measures Affecting the Importation of Apples

(WT/DS245)

Executive Summary of the Oral Presentation
of the United States of America
at the First Substantive Meeting of the Panel

October 28, 2002

1. The key issue in this dispute is whether there is scientific evidence that mature apple fruit transmit the fire blight disease. There is none. The scientific literature is emphatic on this point, and the billions apple fruit traded worldwide makes this fact especially compelling. When there is no scientific evidence that mature apples have been implicated in the transmission of the disease, there cannot be "sufficient evidence" or a "rational or objective" relationship between the measure and the scientific evidence as is required under Article 2.2 of the SPS Agreement.

2. Japan's question of when did the evidence become insufficient is predicated on there having been sufficient evidence at some point – as if the evidence were in doubt and had suddenly tipped over to insufficiency. But the evidence has always been the same: there has never been any scientific evidence that mature apple fruit transmit the disease.

3. Scientific evidence that apple fruit transmit fire blight would have to consist of evidence that fruit have transmitted the disease and/or that fruit are a pathway for transmission. On the first point, Japan does not appear to contest that there is no evidence that apple fruit have ever transmitted the disease. On the second point, the United States' oral question to Japan at the Panel's first substantive meeting with the parties provided an opportunity for Japan to cite the scientific evidence on which it relies to establish that each step of the hypothetical pathway would be completed. These steps have been identified by the International Plant Protection Convention ("IPPC") as necessary to establish the probability of entry of a pest or disease.

4. Japan's answer was very revealing. Japan cited to some evidence that, in rare and extreme circumstances, bacteria could be associated (but only externally) with mature apple fruit. Thus, Japan presented information on step 2 of the IPPC analysis of entry but did not identify scientific evidence relating to the probability of each of the other steps in the hypothetical pathway.

5. This is not enough. Japan cannot simply "envisage" a likelihood that steps 3, 4, and 5 of the IPPC analysis of entry would be completed – that is, that bacteria would survive commercial handling, storage, and transport; that bacteria would survive consumption and/or discard; and that bacteria would be vectored to a susceptible plant host, at a receptive stage, with infection occurring. Japan *must* have scientific evidence rather than mere speculation. Because Japan does *not* have scientific evidence that each step in the pathway would be completed, there is no scientific evidence that imports of mature apple fruit present a genuine, as opposed to hypothetical, risk of transmission of fire blight. Thus, there is not sufficient scientific evidence for Japan to maintain its fire blight measure under Article 2.2 of the SPS Agreement.

6. Moreover, the United States notes that even Japan's presentation of the scientific evidence relating to step 2 of the IPPC analysis of the likelihood of entry (association of the bacterium with harvested fruit) is flawed. Japan's "evidence" relating to endophytic (internal) bacteria in mature fruit rests entirely on three experiments reported in the 1990 paper published by van der Zwet *et al.* As explained in detail by the United States in its first submission, in the first (geographic survey) experiment endophytic bacteria were not recovered from any of the mature or nearly mature fruit tested, in the second (distance) experiment no mature fruit were involved, and in the third (storage) experiment endophytic bacteria were presumed to have

caused internal symptoms but were not tested for or recovered. Thus, contrary to Japan's repeated assertions, none of these three experiments provides evidence that endophytic bacteria may be found in mature fruit. Despite the clarifications provided by the authors of this paper, Japan invites the Panel to rely on subsequent characterizations of the 1990 paper in the literature that are known to be inaccurate. Thus, there is no evidence in the scientific literature that mature fruit will contain endophytic fire blight bacteria.

7. Japan claims that the scientific evidence demonstrates that epiphytic bacteria may be found on mature apple fruit "under certain conditions," but Japan does not identify what those "certain conditions" are and how likely those conditions are to occur. In fact, studies have very rarely detected epiphytic bacteria on mature fruit at harvest, and then only in the most extreme fire blight conditions and only from some of the fruit harvested under those conditions. Numerous studies have not detected epiphytic bacteria from mature fruit harvested from blighted trees and orchards. Thus, even as to step 2 of the IPPC analysis of the likelihood of entry, Japan has not adequately evaluated the scientific evidence.

8. The United States notes that, in response to the U.S. question regarding the scientific evidence relating to each step in the hypothetical pathway, Japan could have simply relied on and cited to the scientific evidence in its 1999 Pest Risk Analysis. Japan did not do so because the 1999 document does not *contain* an analysis of the probability of each step in the hypothetical pathway being completed. Thus, Japan's response to the U.S. question also confirms that Japan has not evaluated the likelihood – *i.e.*, the probability – of entry, establishment, or spread of fire blight on mature apple fruit. By failing to make a proper assessment of risks and to base its fire blight measures on such an assessment, Japan has acted inconsistently with Articles 5.1 and 2.2 of the SPS Agreement.

9. Turning to other arguments, the United States believes Japan's burden of proof argument is flawed. In short, Japan claims that Article 4 of the SPS Agreement, read in conjunction with Article 2.2, suggests that the United States must come forward with evidence that objectively demonstrates to Japan the equivalence of a measure proposed by the United States. Otherwise, Japan claims, an exporting Member would be able to prevail under Article 2.2 merely by contradicting the importing country's evidence. First of all, the United States has not simply brought forward evidence that contradicts the evidence to which Japan points (although the evidence itself, properly read, significantly contradicts Japan's own reading of it). Rather, the United States has brought forward scientific evidence that there is no documented instance of fire blight transmission through mature fruit. None. Moreover, the United States has pointed out the steps necessary to demonstrate that mature apple fruit could be a pathway for transmission and explained that Japan has pointed to no evidence supporting its hypothetical scenario with respect to several of these steps. This is more than sufficient to meet the United States' burden of proof under Article 2.2 that Japan is maintaining its measures without sufficient scientific evidence.

10. Secondly, Japan mischaracterizes the relationship between Article 2.2 and Article 4. Article 4, which obligates a Member to accept a measure as equivalent to its own measure if the

exporting Member objectively demonstrates that the measure achieves the importing Member's appropriate level of protection, presupposes that the measure imposed by the importing Member is maintained with sufficient scientific evidence. Article 4 cannot be read in such a way that an importing Member could escape this basic obligation under Article 2.2. Thus, while Article 4 could provide a particular avenue for the United States to obtain recognition of its measure as equivalent to a Japanese measure complying with Article 2.2, Japan must have sufficient scientific evidence to maintain its measure under Article 2.2 in the first instance.

11. Japan has directed much of its focus in its first written submission to the validity of the 2000 joint Japanese-U.S. study, even reordering the U.S. presentation of the scientific evidence to lead with this study. Even if the 2000 study had not been performed at all, however, this would not relieve Japan of its obligation under Article 2.2 of the SPS Agreement not to maintain the measure without sufficient scientific evidence. There is simply no evidence that mature apple fruit transmits fire blight. To the contrary, there is a significant body of evidence, of which the 2000 joint study is only one part, that mature fruit does not. While the 2000 joint study as conducted did produce valid results, any alleged inadequacies in the study are ultimately irrelevant to the question of whether Japan can point to any evidence of a risk of transmission by apple fruit.

12. The United States notes further that Japan has placed weight on the 1990 van der Zwet *et al.* paper that it will not support. The 1990 paper presents no evidence on, and is not an evaluation of the likelihood of, fire blight transmission. The numerous experiments reported in the paper are studies on whether bacteria are associated internally or externally with apples, nothing more. Thus, this paper, by itself, does not provide scientific evidence that apples are a pathway for fire blight. Nonetheless, Japan cites the 1990 paper as evidence that mature apples could serve as a pathway for fire blight transmission, quoting conjecture by the authors rather than experimental results. However, Japan ignores subsequent conclusions of these same authors to the contrary – conclusions based not on speculation, but on reviews of the scientific literature. Thus, Japan apparently rests much of its case on a conjectural statement by two authors, both of whom have published subsequent work explicitly drawing the opposite conclusion.

13. The United States also suggests that Japan has misused the 1998 paper published by Roberts *et al.* The United States has quoted the conclusion from this paper several times in statements to the Panel and in its first submission: "We have found no evidence in the scientific literature that apple fruit in commercial shipments, whether contaminated with E. amylovora or not, have provided inoculum for an outbreak of fire blight." Given the absence of any scientific evidence that mature apple fruit have transmitted the disease, the paper then attempted to provide a numerical estimation of the likelihood of transmission. The paper described a hypothetical pathway and estimated the overall likelihood of transmission from the probability that each sequential step in the hypothetical pathway would be completed.

14. Japan thus misrepresents the aim and conclusion of the paper when it asserts that, "by assigning positive values to P(1) through P(5)," that is, each step in the hypothetical pathway,

"the authors implicitly acknowledged the risk. These risks are neither theoretical nor hypothetical; they are partially based on experiments. The authors did recognize that the likelihood is something that should be given a positive value." Japan neglects to explain that the whole point of this quantitative model was to use non-zero estimates to demonstrate, even for the hypothetical pathway, that the risk of introduction of fire blight through apples is "extremely low." For example, had the authors used the absence of any scientific evidence that a vector exists to transfer hypothetical bacteria from a discarded fruit to a susceptible host, the value for that step in the pathway would have been zero, and the model would have predicted that apples could never transmit fire blight. Of course, as the panel and Appellate Body found in *EC – Hormones*, "science can never provide absolute certainty" that an event may never occur. Thus, the 1998 paper used non-zero estimates, even where there is no evidence that a step in the hypothetical pathway can be completed; even using these hypothetical values, the theoretical probability is extraordinarily low.

15. Japan also criticizes the 1998 paper for assigning values that are too high to particular steps in the pathway and, therefore, for estimating that the number of years until outbreak would be 38,462 years. However, Japan is well aware that the 1998 Roberts paper significantly overestimates the hypothetical risk of transmission. First, Japan knows that this is an overestimation because the positive data used in the 1998 paper erroneously includes positive results from the 1990 van der Zwet *et al.* paper. Correcting for this error and taking into account additional published data relating to other steps, the estimated years until outbreak would not be 38,462 years but rather 208,667 years. Second, Japan knows that the 1998 paper overestimated the hypothetical risk because, as Japan itself pointed out to the United States in 1999, the model does not include the effect of chlorine on epiphytic bacteria. If a chlorine treatment is included in the model, the estimated years until outbreak rises to 546 billion years. The fact that these corrected numbers are so large merely points out that the 1998 Roberts *et al.* model is an effort to quantify what has never been shown to occur: transmission of fire blight by mature apple fruit.

16. Finally, with respect to U.S. claims under Article XI of GATT 1994 and Article 4.2 of the *Agreement on Agriculture*, the United States notes that, in its first written submission, Japan has stated that it prohibits the importation of apples from the United States pursuant to its Plant Protection Law and its Plant Protection Law Enforcement Regulations, unless produced, harvested, and imported according to restrictions set out by Notification No. 354 of the Ministry of Agriculture, Forestry, and Fisheries and related Detailed Rules. GATT 1994 Article XI prohibits Members from using "prohibitions or restrictions other than duties, taxes, or charges"; Article 4.2 of the *Agreement on Agriculture* states that "Members shall not maintain, resort to, or revert to any measures of the kind which have been required to be converted into ordinary customs duties," and the footnote to this provision clarifies that such "measures include quantitative import restrictions." Thus, Japan has acted inconsistently with its obligations under GATT 1994 Article XI and Article 4.2 of the *Agreement on Agriculture*.

17. In sum, as is evident from Japan's first written submission and its oral statements to the Panel, there remains no evidence that mature apple fruit have ever transmitted and are a pathway

for transmission of fire blight. Even if the 1990 van der Zwet *et al.* paper had produced results exactly as Japan claims – which a close reading of the paper does not support and the paper's own authors contradict – Japan would still not have *scientific evidence* that mature apple fruit have ever transmitted fire blight, Japan would still not have *scientific evidence* that each step in the hypothetical pathway would be completed, and Japan would still not have assessed the *likelihood* that each step in the hypothetical pathway would be completed. In fact, the scientific evidence demonstrates that endophytic bacteria have never been recovered from mature fruit and that epiphytic bacteria are rarely recovered from the outside of mature fruit and then only in the most extreme circumstances. The scientific evidence also demonstrates that several steps in the hypothetical pathway will either not be or are very unlikely to be completed. Thus, no fire blight measure is justified on imported mature fruit because no genuine risk arises to Japanese plant life or health from apple imports. As a result, Japan's fire blight measures are inconsistent with Japan's obligations under the SPS Agreement, the GATT 1994 and the *Agreement on Agriculture*.