

EEP 131, Fall 2004: Prof. Karp  
Term Paper: Mark Philbrick  
[DRAFT: NOT FOR CITATION]

## Disputed Hormones: Risk Assessment, the Cartagena Protocol, and the Legitimacy of the WTO.

### **Environmental Regulations and the WTO**

Concerns about possible collisions between the World Trade Organization (WTO) and environmental laws have haunted the trade regime from its inception. The combination of coverage of national health and safety regulations under the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) with the binding dispute procedures in the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU) gives the WTO powerful influence over national legislation. Although the DSU provides that parties to a dispute may appeal matters of law to the newly constituted Appellate Body (AB), the AB's rulings can only be overturned by a consensus of the membership (WTO 1994b). The AB has no direct authority to vacate national legislation, but failure to do so in the case of an adverse ruling can result in the authorized imposition of substantial countervailing penalties by the complainant. The arbitration awards can be substantial, amounting to hundreds of millions of dollars per year or more, impelling national legislatures to insure the WTO-compliance of their trade-related regulations.

Similar pressures apply to Multilateral Environmental Agreements (MEAs), several of which incorporate trade restrictions. Though no WTO cases have yet directly challenged any MEAs, observers are concerned about the chilling effect of the threat of WTO sanctions on MEA negotiation and implementation (Eckersley 2004). The WTO is seen as undermining the basis of

global environmental governance by granting primacy to free trade over environmental issues (Conca 2000), a perception that threatens the regime's legitimacy (Esty 2002; McMichael 2000). Even Jagdish Bhagwati (2001), a staunch supporter of free trade, has called on the WTO to "lighten up" in order to maintain its credibility and legitimacy.

In response to such criticisms, and in consonance with the views of those that see possibilities for mutual supportiveness between the WTO and other multilateral agreements (Kelly 2003; Matsushita 2004; Ogolla, Lehmann, and Wang 2003; Samson 2001), the WTO's Doha Declarations call for an examination of the relationship between the WTO and MEAs. In particular, paragraph 31 states:

"With a view to enhancing the mutual supportiveness of trade and environment, we agree to negotiations, without prejudging their outcome, on:

- (i) The relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements (MEAs). The negotiations shall be limited in scope to the applicability of such existing WTO rules as among parties to the MEA in question. The negotiations shall not prejudice the WTO rights of any Member that is not a party to the MEA in question" (WTO 2001).

Paragraph 32, which the declarations also assign to a special session of the WTO's Committee on Trade and Environment (CTE), further cautions:

"The outcome of this work as well as the negotiations carried out under paragraph 31(i) and (ii) shall be compatible with the open and non-discriminatory nature of the multilateral trading system, shall not add to or diminish the rights and obligations of Members under existing WTO agreements, in particular the Agreement on the Application of Sanitary and Phytosanitary Measures, nor alter the balance of these rights and obligations" (WTO 2001).

The CTE is to carry out these directives as part of the single Doha round undertaking, with a nominal deadline of Jan. 1, 2005, though the breakdown of agricultural talks in Cancun renders this schedule suspect.

The CTE's narrow mandate precludes more than it includes. Limiting the negotiations to existing WTO rules, in conjunction with the prohibition against alteration of SPS rights and obligations, largely bars consideration of substantive amendment to the WTO texts. As Ogolla, Lehmann, and Wang (2003) astutely note, the emphasis on specific trade obligations omits consideration of MEA provisions that implicitly, rather than explicitly, require trade measures to meet their objectives. Perhaps most seriously, the exclusion of non-party issues, of cases where one WTO member is party to an MEA, but another is not, defers consideration of one of the most probable (and contentious) arenas of conflict. The possibility is not merely theoretical: The U.S., which is not shy about litigating cases before the WTO, is not party to several MEAs, including the Convention on Biodiversity (CBD), the Kyoto Protocol, and the Cartagena Protocol on Biosafety (Cartagena).

Cartagena addresses the transboundary movement of what it terms "living modified organisms" (LMOs), known as genetically modified organisms (GMOs) in other contexts. Although its scope is limited, several articles of the protocol articulate much more expansive visions of the precautionary principle and risk assessment than those set forth in the SPS agreement. While Cartagena's preamble explicitly avers, "Trade and environment agreements should be mutually supportive with a view to achieving sustainable development" (CBD 2000), scholars see potential for collision between the two treaties (Safrin 2002; Winham 2003). Furthermore, the US and the European Union (EU) are already engaged in one dispute over restrictions on the import of GMOs (WTO 2004a), and on track for a second (USTR 2004). The stage is set to drag the Cartagena Protocol into the larger transatlantic food fight.

Much of the literature to date has focused on the possible negative influence of the WTO on environmental regulations and performance (Esty 2000); this paper takes the opposite tack. Rather than succumbing to Eckersley's (2004) "big chill", I argue that incorporating Cartagena's broader conception of risk assessment into the WTO agreements would enhance the WTO's efficacy and legitimacy in the long term. The Doha deadlines and political realities render such a proposal unattainable at the moment, but international negotiations are protracted processes. Consensus comes slowly, if at all; work on the foundations of future agreements needs to start now. While superficially unrelated, as LMOs are not at issue in EC-Hormones, the transatlantic battle over hormone-fed beef superbly highlights the precise weaknesses in the WTO agreements for which the Cartagena protocol offers constructive solutions.

### **EC-Hormones**

The EU restricts the general use of six hormones for growth promotion in beef cattle while allowing their administration by certified veterinarians for purposes of animal health. Of the six, three are naturally occurring sex hormones (oestradiol 17 $\beta$ , testosterone, and progesterone), while three are synthetic compounds with estrogenic, androgenic, or gestagenic<sup>1</sup> action (trenbolone acetate, zeranol and melengestrol acetate). The hormones are usually administered in ear implants that deliver a combination of estrogenic and androgenic compounds, although they can also be injected directly into the edible portions of an animal. Nations that allow the use of these steroids<sup>2</sup> for growth promotion generally require a waiting period between the final administration of the substances and the slaughter of the animal, to avoid the presence of abnormal hormonal concentrations in meat products for human consumption (WTO 1997). The

---

<sup>1</sup> Loosely, feminizing, masculinizing, and pregnancy facilitating, respectively.

<sup>2</sup> Bodybuilders favor Trenbolone acetate, albeit in far higher concentrations than those approved by the FDA.

U.S. FDA considers the use of these hormones in accordance with good husbandry practices safe, as does Canada, and several other beef-exporting nations.

The EU's objections to these practices stem partly from stories about an Italian boy who grew breasts after eating hormone-injected beef (Holmes 2000), but also from more general concerns regarding the ingestion of artificially added hormones. Legislation restricting their use dates from the 80's; while the U.S. and Canada attempted to initiate GATT complaints, they were unsuccessful until the new WTO dispute proceedings entered into force. The initial dispute panel ruled forcefully against the EU regulations, finding them in violation of the SPS requirements to base health and safety regulations on sufficiently scientific risk assessments. While the AB overturned the panel on several important interpretive points, it upheld the panel's conclusion that the EU measures violated articles 3.3 and 5.1 of the SPS Agreement (WTO 1998).

The AB's decision has drawn criticism from multiple angles (Charlier and Rainelli 2002; Holmes 2000; Quick and Blüthner 1999); its jurisprudential significance extends well beyond the EC-hormones case. By overturning the panel's narrow reading of "based on" as equivalent to "conforms to" with respect to international standards, the AB clearly established room for national flexibility in the application of sanitary and phytosanitary measures. In rejecting the panel's view of the relationship between articles 3.1 and 3.3, they affirmed Member's sovereign right to establish their desired level of risk protection:

"This right of a Member to establish its own level of sanitary protection under Article 3.3 of the SPS Agreement is an autonomous right and not an "exception" from a "general obligation" under Article 3.1" (WTO 1998).

However, the AB also made clear that this right is not unrestricted. In particular, Members must comply with the risk assessment requirements laid down in article 5:

“We believe that Article 5.1, when contextually read as it should be, in conjunction with and as informed by Article 2.2 of the SPS Agreement, requires that the results of the risk assessment must sufficiently warrant -- that is to say, reasonably support -- the SPS measure at stake. The requirement that an SPS measure be "based on" a risk assessment is a substantive requirement that there be a rational relationship between the measure and the risk assessment.”

The AB upheld the panel’s ruling that the EU had not demonstrated a “rational relationship” between their measures and the risk assessments placed before the panel. Thus, the measures violated the EU’s WTO obligations, resulting in a recommendation that the EU alter its regulations to bring them into WTO compliance.

The EU contested the implementation of this ruling within the DSU rules, eventually choosing to accept the arbitrator’s authorization of some \$116M in countervailing duties from the U.S. (plus roughly \$16M from Canada) rather than vacate their legislation (WTO 1999). The EU also launched a series of scientific studies designed to provide the precise risk assessment that the panel and AB had deemed missing, and called on other Members to offer relevant scientific data as part of this process. Responsibility for managing and summarizing the received information accrued to The Scientific Committee on Veterinary Measures Relating to Public Health (SCVPH), which issued three cumulative reports in 1999, 2000, and 2002. New evidence discovered in the latter two periods tended to support the 1999 conclusions; the reports should easily qualify as providing a reasonable basis for the updated Directive 2003/74/EC, which reaffirmed and extended the earlier restrictions on the use of the six hormones in question.

The SCVPH (2002) found, *inter alia*:

“In the case of 17-β oestradiol there is a substantial body of recent evidence suggesting that it has to be considered as a complete carcinogen, as it exerts both tumour initiating and tumour promoting effects. The data available does not allow a quantitative estimate of the risk...

For all six hormones endocrine, developmental, immunological, neurobiological, immunotoxic, genotoxic and carcinogenic effects could be envisaged. Of the various susceptible risk groups, prepubertal children are the group of greatest concern. Again the available data do not enable a quantitative estimate of the risk...

Epidemiological studies with opposite-sexed twins, suggest that the exposure of the female co-twin *in utero* to hormones results in an increased birth weight and consequently an increased adult breast cancer risk...

Several studies were devoted to the potential impact of the extensive use of hormones on the environment. Convincing data were presented indicating the high stability of trenbolone and melengestrol acetate in the environment...”

Frightening as these reports may sound, it is important to note that none of the studies establish a statistically significant correlation between the envisaged harms to humans and the levels of hormones routinely present in the meat of treated animals. In fact, the most scientifically suggestive results involve the probability that excreted hormones pose a risk of endocrine disruption in the natural environment. Ecological concerns were not included in the first WTO case; the data is thus thinnest in the area that may prove to be of greatest pragmatic concern.

EU Directive 2003/74/EC makes explicit reference to the SCVPH summaries, and its recitals are clearly framed with the WTO rulings in mind (EC 2003). It maintains the ban on the use of all six hormones for growth promotion, and calls for the phasing out of 17-β oestradiol for all purposes in light of the new evidence of its carcinogenicity. Restrictions on the remaining five hormones are explicitly provisional, in accordance with the EU’s preferred high level of risk protection, and the precautionary principle. The EU argues that it has fulfilled the requirements

of the rulings in EC-Hormones, thus the U.S. and Canada should suspend their countervailing measures. The North American parties beg to differ. Following the failure of informal consultations, the EU initiated formal WTO dispute proceedings in November of 2004 (WTO 2004b). This new case is likely to reawaken questions left unsettled by the rulings in EC-Hormones, issues of salience beyond the confines of this particular dispute.

### **Issues at Stake**

Perhaps the most important question partly begged by the AB is the definition of what constitutes a “rational relationship” between an SPS measure and the risk assessments upon which it is based. Extreme advocates of ‘sound science’ would find support in the panel’s ruling equating ‘proper’ risk assessment with quantitative evaluation of factors replicable in a laboratory environment. However, the AB emphatically rejected such narrow conceptions:

“To the extent that the Panel purports to exclude from the scope of a risk assessment in the sense of Article 5.1, all matters not susceptible of quantitative analysis by the empirical or experimental laboratory methods commonly associated with the physical sciences, we believe that the Panel is in error... It is essential to bear in mind that the risk that is to be evaluated in a risk assessment under Article 5.1 is *not only risk ascertainable in a science laboratory operating under strictly controlled conditions, but also risk in human societies as they actually exist, in other words, the actual potential for adverse effects on human health in the real world where people live and work and die*” (WTO 1998, §172, italics added).

The AB’s statement points to, but does not endorse, the next step in the cognitive chain: that risk perception, analysis, and management are culturally specific (Winickoff et al. 2004). People not only “live and work and die” in the real world, they also take economic and political action within that same milieu. To expand, the AB’s conception of a rational relationship between risk assessment and protective measures misses three critical elements:

- 1) The desired level of risk protection articulated in article 3.3 should refer not just to the assessment of individual risks in isolation, nor be limited solely to cases where the desired level of protection exceeds an international standard, but to the national determination of risk assessment priorities in general. Members need the freedom, *inter alia*, to reflect their chosen level of protection in national:
  - a) Risk analysis procedures;
  - b) Required levels of citizen participation in risk analysis; and
  - c) Preferences in weighing risks against putative benefits, and culturally appropriate processes for arriving at such collective decisions.

The recent approval of revised risk assessment procedures that recognize the importance of stakeholder participation in risk analysis by the Codex Alimentarius Commission (Codex 2003a, 2003b) is welcome in this regard. Codex is specifically referenced as a standards organization in the SPS agreement, and SPS Article 5.1 calls on members to take into account “risk assessment techniques developed by the relevant international organizations” (WTO 1994a).

- 2) Although the EU intentionally avoided invoking SPS Article 5.7 in their defense, their arguments did make specific reference to the precautionary principle (WTO 1997). The AB’s sidestepping of this issue (Holmes 2000; Quick and Blüthner 1999) leaves open the question of what constitutes a “reasonable period of time” under Article 5.7. The language in the SPS agreement assumes that scientific uncertainty is a temporary condition, readily correctable with additional evidence. The evidence in EU-Hormones demonstrates that additional research can expand, rather than narrow, the range of credible scientific uncertainty, raising the possibility that precautionary measures might be necessary for extended periods.
- 3) The SCVPH’s unanticipated finding that the primary immediate threat of the contested hormone use may be to ecological, rather than human, health elicits further questions about the “rational relationship” between precautionary measures and existing data. The EU may argue that its evidence demonstrating possible endocrine disruption and carcinogenicity points to an elevated probability of additional unforeseen consequences; the U.S. is unlikely to concur.

In summary, the new hormones case will force the panel and the AB to revisit several critical ambiguities in the SPS texts. The EU has eliminated the weakest link in its earlier argument by conducting a thorough risk assessment; the issues that remain will require artful interpretation.

## **Proposed Amendments**

No agreement can cover all possible contingencies; some interpretation will always be necessary. However, the Cartagena protocol contains language that could simplify the AB's work in the precise areas of difficulty raised by the EC-hormones case. In addition, the new Codex risk assessment guidelines contain references to precaution that support the Cartagena position, and might help bridge the gap between the Biosafety Protocol and the SPS Agreement. Specifically, amendments to SPS articles 5.5 and 5.7 inspired by provisions from both Cartagena and Codex would address the three concerns raised in the previous section, granting Members more flexibility in establishing their desired level of protection.

SPS Article 5.5 reads:

“With the objective of achieving consistency in the application of the concept of appropriate level of sanitary or phytosanitary protection against risks to human life or health, or to animal and plant life or health, each Member shall avoid arbitrary or unjustifiable distinctions in the levels it considers to be appropriate in different situations, if such distinctions result in discrimination or a disguised restriction on international trade. Members shall cooperate in the Committee ... to develop guidelines to further the practical implementation of this provision. In developing the guidelines, the Committee shall take into account all relevant factors, including the exceptional character of human health risks to which people voluntarily expose themselves” (WTO 1994a).

The insertion of the phrase “and without prejudice to paragraph 3 of Article 3 or Members’ other obligations under international law” after “plant life or health” would clarify that Member’s right to establish their desired level of protection applies generally, not just in cases of conflict with standards officially recognized by the SPS agreement. By underscoring Member discretion, it affords more leeway for differences in national levels of protection without creating the

presumption that such differences are “arbitrary and unjustified”. The proposed amendment resonates with Article 2.4 of Cartagena, which states in part:

“Nothing in this Protocol shall be interpreted as restricting the right of a party to take action that is more protective of the conservation and sustainable use of biological diversity than that called for in this Protocol, provided that such action ... is in accordance with the Party’s other obligations under international law” (CBD 2000).

While the amendment makes a long sentence even longer, it lends different shading to the paragraph to guide future panels, and also embeds the WTO more firmly in the web of international law, as Esty (2002) urges.

Further, SPS Article 5.7 states in part:

“In cases where relevant scientific evidence is insufficient, a Member may provisionally adopt sanitary or phytosanitary measures on the basis of available pertinent information ... 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” (WTO 1994a).

Note that the text presumes that the necessary information is obtainable within a reasonable period of time, an assumption that does not hold in cases of profound scientific uncertainty. In contrast, the Cartagena Protocol adopts a more flexible stance, driven primarily by the availability of relevant new data. To establish reasonable grounds for comparison, sections of Articles 10.6 and 12 should be read together:

“Lack of scientific certainty due to insufficient relevant scientific information and knowledge regarding the extent of the potential adverse effects of a living modified organism ... shall not prevent that Party from taking a decision, as appropriate, with regard to the import of the living modified organism in question” (CBD 2000, 10.6).

“A Party of import may, at any time, in light of new scientific information on potential adverse effects ... review and change a decision regarding an international transboundary movement” (CBD 2000, Article 12.1).

“A Party of export or a notifier may request the Party of import to review a decision it has made ... where the Party of export or the notifier considers that:

- (a) A change in circumstances has occurred that may influence the outcome of the risk assessment upon which the decision was based; or
- (b) Additional relevant scientific or technical information has become available” (CBD 2000, Article 12.2).

In Cartagena, new information or circumstances that one of the parties considers relevant prompts review, as opposed to the SPS assumption of the feasibility of review within “a reasonable period of time”. The distinction is subtle, but substantial. The Cartagena language allows for the persistence of scientific uncertainty, or even its expansion, as has occurred in the EC-hormones case. The new Codex procedures support this position, recognizing that “precaution is an inherent element of risk analysis” (Codex 2003a, paragraph 11).

While space precludes elaboration of a precise textual proposal, incorporation of the information-driven approach to review in SPS article 5.7 would correct the erroneous assumption that scientific uncertainty is always obtainable within a period of time that all parties would consider reasonable. In addition, the recognition of more profound types of scientific uncertainty within the text could encourage panels to adopt a more precautionary stance towards the “rational relationship” between the scientific evidence at hand and the measures in question. A sound scientific demonstration of potential risks in the laboratory does not necessarily imply risks “in the real world where people live and work and die” (WTO 1998). However, laboratory data can offer verifiable evidence of the possibility of harm, and determination of the appropriate level of protection against such possibilities remains the prerogative of individual Members. Incorporation of some of Cartagena’s wisdom into the SPS texts would support that right, thereby enhancing the long-term legitimacy of the WTO.

## References:

- Bhagwati, Jagdish (2001). After Seattle: Free trade and the WTO. *International Affairs* 77(1): 15-29.
- Charlier, Christophe and Michel Rainelli (2002). Hormones, risk management, precaution, and protectionism: An analysis of the dispute on hormone-treated beef between the European Union and the United States. *European Journal of Law and Economics* 14: 83-97.
- Codex Alimentarius Commission (2003a). Risk Analysis Policies of the Codex Alimentarius Commission. *ALINORM 03/26/6*. Viewed at [www.codexalimentarius.net](http://www.codexalimentarius.net) on 11/12/04.
- \_\_\_\_\_. (2003b). Principles for the Risk Analysis of Foods Derived from Modern Biotechnology. *CAC/GL 44-2003*. Viewed at [www.codexalimentarius.net](http://www.codexalimentarius.net) on 11/12/04.
- Commission of the European Communities (EC) (2002). Review of previous SCVPH opinions of 30 April 1999 and 3 May 2000 on the potential risks to human health from hormone residues in bovine meat and meat products. *Opinion of the Scientific Committee on Veterinary Measures Related to Public Health (SCVPH)*, 10 April. Viewed at [http://europa.eu.int/comm/food/fs/sc/scv/out50\\_en.pdf](http://europa.eu.int/comm/food/fs/sc/scv/out50_en.pdf) on 11/15/04.
- \_\_\_\_\_. (2002). Commission Regulation 178/2002. *Official Journal of the European Communities*, L 31: 1-24.
- \_\_\_\_\_. (2003). Directive 2003/74/EC. *Official Journal of the European Communities*, L 262/17.
- Conca, Ken (2000). The WTO and the undermining of global environmental governance. *Review of International Political Economy* 7(3): 484-494.
- DeSombre, Elizabeth R. and J. Samuel Barkin (2002). Turtles and trade: The WTO's acceptance of environmental trade restrictions. *Global Environmental Politics* 2(1): 12-18.
- Eckersley, Robyn (2004). The big chill: The WTO and multilateral environmental agreements. *Global Environmental Politics* 4(2): 24-50.
- Esty, Daniel C. (2000). Environment and the trading system: Picking up the post-Seattle pieces. In *The WTO After Seattle*, ed. J. J. Schott, 243-252. Washington: Institute for International Economics.
- \_\_\_\_\_. (2002). The World Trade Organization's legitimacy crisis. *World Trade Review* 1(1): 7-22.
- Finger, J. Michael and Julio J. Nogués (2002). The unbalanced Uruguay Round outcome: The new areas in future WTO negotiations. *The World Economy* 25: 321-350.
- Holmes, Peter (2000). The WTO beef hormones case: A risky decision? *Consumer Policy Review* 10(2): 61-71.
- Kelly, Trish (2003). The WTO, the environment and health and safety standards. *The World Economy* 26(1): 131-151.
- Matsushita, Mitsuo (2004). Governance of international trade under world trade organization agreements – relationships between World Trade Organization agreements and other trade agreements. *Journal of World Trade* 38(2): 185-210.
- McMichael, Phillip (2000). Sleepless since Seattle: What is the WTO about? *Review of International Political Economy* 7(3): 466-474.
- Ogolla, Bondi, Markus A. Lehmann, and Xueman Wang (2003). International biodiversity and the World Trade Organization: Relationship and potential for mutual supportiveness. *Environmental Policy and Law* 33(3-4): 117-132.
- Quick, Rienhard and Andreas Blüthner (1999). Has the Appellate Body erred? An appraisal and criticism of the ruling in the WTO hormones case. *Journal of International Economic Law* 2(4): 603-639.
- Safrin, Sabrina (2002). Treaties in collision? The Biosafety Protocol and the World Trade Organization agreements. *The American Journal of International Law* 96(3): 606-628.
- Sampson, Gary P. (2001). Effective multilateral environment agreements and why the WTO needs them. *The World Economy* 24(9): 1109-1134.
- Secretariat of the Convention on Biological Diversity (CBD) (2000). *Cartagena Protocol on Biosafety to the Convention on Biological Diversity: text and annexes*. Montreal: Secretariat of the Convention on Biological Diversity.
- U.S. Trade Representative (USTR) (2004). *National Trade Estimate Report on Foreign Trade Barriers*. Viewed at [http://www.ustr.gov/assets/Document\\_Library/Reports\\_Publications/2004/](http://www.ustr.gov/assets/Document_Library/Reports_Publications/2004/) on 12/3/04.
- Winham, Gilbert R. (2003). International regime conflict in trade and environment: the Biosafety Protocol and the WTO. *World Trade Review* 2(2): 131-155.
- Winickoff, David, Lawrence Busch, Robin Grove-White, Sheila Jasanoff, and Brian Wynne (2004). Amicus Curiae Brief Submitted to the Dispute Settlement Panel of the WTO in the case of EC: Measures Affecting the

- Approval and Marketing of Biotech Products, 30 Apr. Viewed at [http://www.genewatch.org/WTO/Amicus/AcademicAmicus\\_WTO\\_submission.pdf](http://www.genewatch.org/WTO/Amicus/AcademicAmicus_WTO_submission.pdf) on 7/7/04.
- World Trade Organization (1994a). *Agreement on the Application of Sanitary and Phytosanitary Measures (SPS)*. Viewed at [http://www.wto.org/english/docs\\_e/legal\\_e/15-sps.pdf](http://www.wto.org/english/docs_e/legal_e/15-sps.pdf) on 10/18/04.
- \_\_\_\_\_ (1994b). *Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU)*.
- \_\_\_\_\_ (1994c). *The Text of the General Agreement on Tariffs and Trade (GATT 1947)*.
- \_\_\_\_\_ (1997). *European Communities – Measures Concerning Meat and Meat Products (Hormones), Complaint by the United States: Report of the Panel*. WT/DS26/R/USA, 18 Aug.
- \_\_\_\_\_ (1998). *European Communities – Measures Concerning Meat and Meat Products (Hormones): Report of the Appellate Body*. WT/DS26/AB/R, 16 January.
- \_\_\_\_\_ (1999). *European Communities – Measures Concerning Meat and Meat Products (Hormones). Recourse to Arbitration by the European Communities Under Article 22.6 of the DSU: Decision by the Arbitrators*. WT/DS26/ARB, July 12.
- \_\_\_\_\_ (2001). Ministerial Declaration. *Declarations and Decisions Adopted by WTO Members at the Fourth Ministerial Conference (The Doha Declarations)*. Doha, Qatar: 9-13 November.
- \_\_\_\_\_ (2004a). *European Communities – Measures Affecting the Approval and Marketing of Biotech Products (WT/DS291, 292, and 293): First Submission of the United States, 21 April*.
- \_\_\_\_\_ (2004b). *United States – Continued Suspension of Obligations in the EC – Hormones: Request for Consultation by the European Communities*. WT/DS320/1, G/L/713, 10 November.