A key question in the evolution of risk management in the U.S. has been whether risk assessment and risk management are more than conceptually linked, i.e. should they also be structurally linked in the regulatory organizations responsible for SPS measures. An ideal arrangement has not been achieved, but our experience has demonstrated that efficiencies are created by working more closely together, in particular as regards risk communication and the sharing of information.

Another area that has been challenging in the U.S. is regulatory design. The almost 20 year history of risk management with an eye toward SPS compliance is in contrast to the previous decades of regulatory decision-making which had various approaches and designs. Moving to a more SPS-consistent, risk-based regulatory framework has required reaching back to align past and current approaches, which usually requires more rulemaking at a time when rulemaking is severely limited. Nevertheless, the evolution of risk management marches forward with growing sophistication, including greater emphasis on continuum approaches to analysis that result in systems approaches for risk management. A central point in this evolution has been distinguishing the characteristics that define the commodity from those which are necessary (prescribed) to mitigate risk. Added to this complexity is the question of normal industry practices which affect risk and measures which are required to reduce or eliminate risk and may overlap or be redundant.

The primary mitigation strategy continues to be based on inspection, but with an increasing awareness of the statistical underpinnings and fundamental concepts associated with sampling for detection. International standards have helped with harmonizing the conceptual basis for better understanding the proper implementation of risk-based sampling, but the adoption of these processes has been slow in practice. Treatment strategies have likewise experienced considerable evolution as their efficacy and risk-based justification frequently come under question. The development and use of high-efficacy, single-point mitigation is increasingly rare as systems approaches with reduced efficacy grow in popularity due to the increased flexibility offered by these designs.

Lessons learned from SPS disputes have served to focus risk management in the U.S. on questions related to managing uncertainty and the rational relationship of measures to risk in pathway specific situations. A continuum approach to both analysis and management has driven the development of more sophisticated techniques that offer greater possibilities for creative designs in the future.