

INTRODUCTION¹

As we embark on the twenty-first century, changes seem to occur at an ever-increasing pace. These changes create both threats and opportunities for the agricultural industry. Since the 1780s, American farmers have formed cooperatives to enhance their ability to function in the marketplace.² The new and more complex problems facing cooperatives today require them to adapt if they are to continue serving their members.³

Perhaps the greatest challenge to twenty-first century agriculture is the changing climate.⁴ Scientists predict that over the next 100 years, the average global temperature will rise by 1 to 3.5 degrees centigrade.⁵ This increase in temperature will cause more episodes of heavy

¹ A cooperative is a business which is voluntarily owned and controlled by its member patrons, operated for and by them on a cost or nonprofit basis. The people who use it are its owners. *University of Wisconsin Center for Cooperatives* (last modified Nov. 23, 1999) <<http://cooperatives.ucdavis.edu/what/agricultural.html>>.

² MARTIN A. ABRAHAMSEN, *COOPERATIVE BUSINESS ENTERPRISE* 89 (1976).

³ See Neil D. Hamilton, *Plowing New Ground: Emerging Policy Issues in a Changing Environment*, 2 *DRAKE J. AGRIC. L.* 181 (1997).

⁴ Dr. Margaret Leinent, Assistant Director for Geosciences National Science Foundation, prepared testimony before the Senate Committee on Energy and Natural Resources (Mar. 30, 2000), *reprinted by Fed. News Serv.*, March 30, 2000.

⁵ *Id.*

rainfall, as well as an increase in the number of droughts.⁶

Another major area challenging agriculture is the expanding global market and the increasing importance of international law.⁷ The evolution of the European Union's economic system, open trade, the growing influence of the World Trade Organization, and the increasing prominence of the International Monetary Fund all complicate the international trade scene.⁸ The rise of genetic engineering and laws governing it further complicate the future of international agricultural trade.⁹

Multiple other factors will shape the future for America's farmers and agricultural cooperatives. Concern over the environment is a major area of growing concern.¹⁰ Pesticide laws are becoming more strict,¹¹ fresh water is becoming more scarce,¹² and air pollution, although improved in some areas, remains a serious problem.¹³

Issues related to dependence on fossil fuels will have great influence on the future of American agriculture, as well as the future of society overall.¹⁴ Agriculture currently uses fossil fuels to power equipment, to

⁶ *Id.*

⁷ See Terence J. Centner, *The Internationalization of Agriculture: Preparing for the Twenty-First Century*, address at the American Agricultural Law Association Conference (Nov. 12, 1993), in 73 NEB. L. REV. 5 (1994) for background on the impact of the developing global economy. See also Walter J. Armbruster, *Challenges for Agricultural Lawyers Facing the 21st Century*, address at the American Agricultural Law Association Conference, in 3 DRAKE J. AGRIC. L. 1 (1998); Diane P. Wood, *United States Antitrust Law in the Global Market*, 1 IND. J. GLOBAL LEG. STUD. 409 (1994).

⁸ See, e.g., Sandra Blanco & Enrique Carrasco, *Pursuing the Good Life: The Meaning of Development as It Relates to the World Bank and the IMF*, 9 TRANSNAT'L L. & CONTEMP PROBS. 67 (1999).

⁹ See Stevan M. Pepa, *International Trade and Emerging Genetic Regulatory Regimes*, 29 LAW & POL'Y INT'L BUS. 415 (1998); Laura Tangley, *Of Genes, Grain, and Grocers*, U.S. NEWS & WORLD REP., Apr. 10, 2000, at 49.

¹⁰ See Margaret Ross Grossman, *Ago-Environmental Measures in the Common Agricultural Policy*, 25 U. MEM. L. REV. 927 (1997) (discussing the "inherent conflict" between agriculture and the environment).

¹¹ See Theresa Heil, *Agricultural Nonpoint Source Runoff-The Effects Both On and Off the Farm*, 5 WIS. ENVTL. L.J. 43 (1998); Robert F. Blomquist, *Applying Pesticides: Toward Reconceptualizing Liability to Neighbors for Crop, Livestock, and Personal Damages from Agricultural Drift*, 48 OKLA. L. REV. 393 (1995).

¹² See, e.g., Jim Mediaeval, *Down the Drain: The Coming World Water Crisis*, INSTITUTE PUB. OFF. IN THESE TIMES, Apr. 17, 2000, at 18.

¹³ See Gary Polakovic, *Breathing Can Be Hazardous to Your Health*, L.A. TIMES, Jan. 10, 2000, at B8.

¹⁴ See, e.g., Allan M. Richards, *Biomass Energy: An Agricultural Role in Pollution Control?*, 45 DRAKE L. REV. 143 (1997).

grow and process products, and to transport those products.¹⁵ As fuel prices fluctuate and shortages occur, the agricultural industry must find new ways to continue feeding the nation and the world, while still realizing a worthwhile profit.¹⁶

Additionally, the safety of food is a vital consumer concern. Reports of contaminated food¹⁷ are driving consumers to demand more safety controls. Farmers, the foundation of the food production chain, will confront these concerns, even when problems arise far from the barnyards, fields, or cooperative processing plants. For example, farmers and their cooperatives may have to defend themselves against allegations that they are responsible for the contamination.¹⁸

The agricultural industry has greater power through cooperative than through individual effort. Cooperatives must prepare to meet the challenges of the future, both for their own survival and that of their members.

The intent of this special symposium issue of the *San Joaquin Agricultural Law Review* is to spark discussion of ways cooperatives can meet the challenges of the new century. Authors were invited to write about this future from various perspectives. Basil G. Coley analyzes several economic issues in *Economic Factors Associated with the Growth and Development of Agricultural Cooperatives*. Devry S. Boughner and Daniel A. Sumner collaborated in writing *Producer Participation in Price Pooling Cooperatives to Smooth Income Variability: Evidence from California*. David K. Smith addresses problems related to crop yield in *Crop Yield Uncertainty: Issues for New Generation Cooperatives*. Kathryn McTigue-Floyd, a law librarian and also a law student, concludes the symposium with a bibliography. *Agricultural Cooperative Law: A Selective Bibliography* will provide a basis for further research on the future of agricultural cooperatives. *San Joaquin Agricultural Law Review* encourages further discussion of issues

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ See, e.g., Sharlene W. Lassiter, *From Hoof to Hamburger: The Fiction of a Safe Meat Supply*, 33 WILLAMETTE L. REV. 411; Chryssa V. Deliganis, *Death by Apple Juice*, 53 FOOD DRUG L.J. 681 (1998).

¹⁸ See *Bailey v. Manson Growers Cooperative*, No. 17234-1-III, 1999 Wash. App. Lexis, at *560 (Wash. Ct. App.1999), for an example of a dispute between a grower and a processor regarding responsibility for chemical contamination of apples. See *Aetna Ins. Co. v. Amelio Bros. Meat Co.*, 538 N.E.2d 707 (1989), for an example of the extensive investigation which such disputes may require. This case centered on responsibility for packing material being found in processed food.

related to the future of agricultural cooperatives. Authors are invited to submit scholarly articles for potential publication in future issues.

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