

SILLY RABBIT, FARM SUBSIDIES DON'T HELP AMERICA

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INTRODUCTION

A quick scan of the headlines of any major newspaper will demonstrate the varied international and domestic problems facing United States policy-makers. The war on terror, the uncertain future of oil supplies and their subsequent price, international trade policy and trade imbalances, and the national budget deficit are only a few of the important issues policy-makers must address. All of these concerns arguably have an environmental impact, but it is in connection with agricultural price supports where that environmental impact is less obvious, even tangential. This impact is intertwined with other resource-use questions, but the prolonged failure of price supports to achieve their suggested goals¹ should require American policy-makers to examine whether continuing price supports is worth the cost to taxpayers, to America's reputation as a world leader in trade and to the environment.

Farm subsidies come in all shapes and sizes, including payments made directly to farmers without respect to the amount they produce, loans guaranteed by the government, payments for leaving land unproductive, and price guarantees for particular commodities paid to farmers by the government.² These different subsidies have been grouped into "boxes" by the World Trade Organization ("WTO"), according to the degree to which they potentially distort trade.³ Price supports, which for the purpose of this Note will include all agricultural subsidies that distort prices, are considered to be the worst kind of farm subsidy.⁴

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¹ See *infra* Part II.

² World Trade Organization, Domestic Support in Agriculture: The Boxes (Oct. 1, 2002), http://www.wto.org/english/tratop_e/agric_e/agboxes_e.htm [hereinafter Boxes].

³ *Id.*

⁴ *Id.*

For the last seventy-five years, the United States has employed price supports for certain agricultural products, including wheat, cotton, corn, milk and rice.⁵ Lobbyists and politicians have consistently asserted that these price supports are necessary in order to protect various American interests, including national security,⁶ the family farm and the values it represents,⁷ and America's competitive position in the global market.⁸ Such interests may have been valid reasons for price supports when they were first established during the early 1930s,⁹ but today they would be more appropriately asserted as reasons for ending price supports.¹⁰

Price supports are at odds with American trade policy. They injure the competitive ability of domestic and international farmers by unfairly and unnecessarily distorting commodity prices.¹¹ In addition to supporting the price of domestic agricultural products, the United States gives millions of dollars in foreign aid to feed the farmers in countries where our domestic subsidies make farming unprofitable.¹² Domestic price supports focus the agricultural might of the United States on growing crops for a guaranteed price. The government should instead be pushing the agricultural sector into producing profitable and innovative crops which require no price supports. The latter approach would contribute to ending the nation's dependence on foreign oil while simultaneously curtailing the conspicuous pollution encouraged by price supported crops. Once agricultural concerns are cut off from the pap¹³ of price supports, farmers will be forced to innovate.¹⁴ Agricultural projects can supply profitability,

⁵ Nathan R.R. Watson, *Federal Farm Subsidies: A History of Government Control, Recent Attempts at a Free Market Approach, the Current Backlash, and Suggestions for Future Action*, 9 DRAKE J. AGRIC. L. 279, 280, 284-94 (2004).

⁶ Robert Goodman, A Five-Point Defense of Farm Subsidies, http://www.alfafarmers.org/issues/farm_programs.phtml (last visited Dec. 1, 2006).

⁷ DAVID E. HAMILTON, FROM NEW DAY TO NEW DEAL: AMERICAN FARM POLICY FROM HOOVER TO ROOSEVELT, 1928-1933, at 20 (1991).

⁸ See Goodman, *supra* note 6, at 297.

⁹ Watson, *supra* note 5.

¹⁰ See *infra* Part II.

¹¹ See Gawain Kripke, *Make Trade Fair*, DOLLARS & SENSE, Nov.-Dec. 2003, at 20.

¹² U.S. Overseas Loans and Grants [Greenbook]: Sub-Saharan Africa (Total), http://esdb.cdie.org/gbk/query_historical.html (follow "Country Reports" hyperlink; select "Sub-Saharan Africa (Total)" and "Standard Ten Year Report") (last visited Dec. 1, 2006) [hereinafter Greenbook].

¹³ A "pap" is a "soft or semi-liquid food for infants." 2 SHORTER OXFORD ENGLISH DICTIONARY (5th ed. 2002).

¹⁴ See generally David Luhnnow & Geraldo Samor, *Bumper Crop: As Brazil Fills Up on Ethanol, It Weans Off Energy Imports*, WALL ST. J., Jan. 9, 2006, at A1.

while at the same time providing answers to some of the concerns facing the United States.¹⁵

Dependence on foreign oil is on many drivers' minds.¹⁶ Many agriculturally-based fuels, including ethanol and biodiesel, can help alleviate that concern.¹⁷ Price-supported cotton, which requires the most aggressive pesticide protection of any crop, could be replaced by organic cotton,¹⁸ or if pending legislation passes, by industrial hemp, both which require little or no pesticide.¹⁹

Continuing price supports will hurt U.S. farmers²⁰ and further injure the land upon which farmers rely for their future prosperity.²¹ The public at large has been sold a "bill of goods"²² which asserts that farmers cannot survive without price supports, and that therefore the United States cannot survive without price supports.²³ This argument fails to recognize the real result of price supports and, more importantly, it fails to recognize the ingenuity and productivity that is responsible for making U.S. agriculture the global powerhouse²⁴ that it is.²⁵ Instead of encouraging farmers to grow unprofitable crops through price supports, the United States should embark on a journey to re-empower the agricultural sector by incentivizing crops that not only provide answers to some of the most

¹⁵ See *infra* Part III.

¹⁶ See Harkin Introduces Legislation Ensuring Drivers Can Use Money-Saving Ethanol (Nov. 10, 2005), <http://harkin.senate.gov/news.cfm?id=248566>.

¹⁷ *Id.*

¹⁸ G. Pascal Zachary, *100% Rotten*, BUS. 2.0, Dec. 1, 2005, at 148, 153.

¹⁹ D. P. West, Hemp as Weed Control, <http://www.gametec.com/hemp/WEED.CTRL.htm> (last visited Dec. 1, 2006).

²⁰ Daniel T. Griswold, Presentation at the Cato Institute Policy Forum: Farm Bill Follies (June 6, 2002), available at <http://www.freetrade.org/pubs/speeches/dg-060602.html>.

²¹ See Ellen Hickey & Yenyen Chan, Tobacco, Farmers and Pesticides: The Other Story (May 1998), <http://www.panna.org/resources/documents/tobacco.dv.html>.

²² To be sold a "bill of goods" is to be "swindled," or "persuad[ed] . . . to accept something undesirable." 1 SHORTER OXFORD ENGLISH DICTIONARY (5th ed. 2002).

²³ Kenneth A. Cook, Speech to the Am. Bankers Ass'n Agric. Bankers Annual Meeting: Farm Policy for the Rest of Us (Nov. 16 2004), available at <http://www.ewg.org/issues/agriculture/20041119/index.php>.

²⁴ *U.S. Interests in the WTO and the DOHA Round: Hearing Before the S. Subcomm. on International Trade of the S. Comm. on Finance*, 109th Cong. 4-5 (2005) [hereinafter *U.S. Interests in the WTO*] (statement of Edward Gresser, Director of the Project on Trade and Global Markets, Progressive Policy Institute), available at <http://www.senate.gov/~finance/hearings/testimony/2005test/102705egtest.pdf>.

²⁵ See Food and Agricultural Organization of the United Nations, Major Food and Agricultural Commodities and Producers, <http://www.fao.org/es/ess/top/topproduction.html?lang=en&country=231&year=2005> (last visited Dec. 1, 2006).

pressing concerns facing the country, but that do so in an environmentally sound way.²⁶

Part I of this Note examines the history of price supports in the United States from before the Great Depression to the present WTO agreements concerning agricultural subsidies. Part II examines the failures of agricultural price supports, including the failure to protect the mythical, if not merely misrepresented, family farmer, the counterproductive effects of farm subsidies on global trade agreements, and the inevitably detrimental environmental consequences of price supports. Part III examines three alternatives to subsidized crops, the societal and environmental benefits of those alternatives, and the obstacles farmers face when trying to profitably grow them. Finally, this Note will argue for the need to embrace the American farmers' ingenuity as a vital part of our national character, and the parallel need to discard the myth that these farmers will suffer terribly without price supports.

I. THE HISTORY OF UNITED STATES AGRICULTURAL PRICE SUPPORTS

A. *Before the Agricultural Marketing Act*

In order to understand United States agricultural price support programs, it is necessary to understand their origins in terms of the how the policies were formed, the rationales for price supports, and the various government tools that have been used to protect farmers from uncontrollable price fluctuations. "USDA commodity and price support programs represent the heart of U.S. farm policy, by virtue of their longevity—they have existed since the early 1930s . . ."²⁷

Farmers are at the mercy of forces beyond their control. The weather conditions, both mundane and disastrous, the level of demand in the market for their products, and the level of technology being employed by other farmers are all factors that farmers cannot control.²⁸ Before the Sherman Antitrust Act,²⁹ farmers were also at another disadvantage.

²⁶ See *infra* Part III.

²⁷ GEOFFREY S. BECKER, CONG. RES. SERV., ORDER CODE RS20848, FARM COMMODITY PROGRAMS: A SHORT PRIMER 1 (2002), available at <http://ncseonline.org/nle/crsreports/RS20848.pdf>.

²⁸ U. S. INFO. AGENCY, FROM REVOLUTION TO RECONSTRUCTION: AN OUTLINE OF AMERICAN HISTORY, at ch. 6(6) (1990), http://odur.let.rug.nl/~usa/H/1990/ch6_p6.htm [hereinafter REVOLUTION].

²⁹ Sherman Anti-trust Act of 1890, 15 U.S.C. §§ 1-7 (2006).

While they sold their products at competitive market prices, they bought their supplies and equipment from industries that were protected by trusts.³⁰ These challenges often put farmers in impossible situations. When prices were high, they borrowed against land and crops in order to invest in more land and better technology. When prices fell abruptly, farmers then faced large debts with little hope of repayment. “[E]ffort[s] to organize farmers to control production or withhold commodities from the market was one of the central themes of agricultural history from the 1890s to the 1930s. It was, however, a story of frustration”³¹

During World War I, farmers benefitted from increased foreign demand for their products.³² Following the war, the credit position of the United States reversed from billion dollar debtor to billion dollar creditor.³³ This reversal changed ready foreign consumers into price competitors due to the end of their preoccupation with war and the need to sustain national economies under the burden of massive debt.³⁴ This change was partially responsible for the sharp decrease in demand for American agricultural products.³⁵ Once again, farmers faced the down side of their economic cycle.³⁶

Throughout the 1910-20s, farm interests were addressed through different approaches. The problems facing farmers included a generally weak bargaining position, increased foreign competition, surplus production, and the farmers’ inability to shield themselves from general market instability.³⁷ President Wilson sought to “partner” with farmers to fill in the administrative gaps that farmers were unable to fill themselves.³⁸ President Harding continued this approach, granting the Department of Agriculture more power and “exempt[ing] agricultural cooperatives from anti-trust statutes with the Capper-Volstead Act.”³⁹ Despite these attempts farmers still bore the same risks.⁴⁰

³⁰ REVOLUTION, *supra* note 28.

³¹ HAMILTON, *supra* note 7, at 5.

³² *Id.* at 10. See also U-S-History.com, The Coolidge Administration: McNary-Haugen Farm Relief Bill 1924-1928, <http://www.u-s-history.com/pages/h1439.html> (last visited Dec. 1, 2006).

³³ HAMILTON, *supra* note 7, at 11.

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.* at 10.

³⁷ *Id.* at 24.

³⁸ *Id.* at 17-18.

³⁹ *Id.* at 19; see also Capper-Volstead Act of 1922, 7 U.S.C. §§ 291, 292 (2006).

⁴⁰ HAMILTON, *supra* note 7, at 19.

These voluntary programs created free-rider⁴¹ problems.⁴² As farmers sought to collectively dictate prices, non-participating farmers benefitted from the price stability without having to obey any of the rules agreed to by the collective of farmers.⁴³ This created negative incentives for farmers to over-produce and to remain outside the collectives.⁴⁴

The McNary-Haugen Farm Relief Bill was a proposal that sought mandatory participation by farmers in these collectives.⁴⁵ It gained extensive support, but could not get past the vetoes of President Coolidge,⁴⁶ who “pointed to looming evils of price-fixing and a swelling bureaucracy.”⁴⁷ This Bill continued to be an issue in the election of 1928,⁴⁸ which Herbert Hoover won by a wide margin.

B. The Agricultural Marketing Act & Its Descendants: The Beginning of Subsidies

At the beginning of his presidency in 1929, Herbert Hoover sought to put agricultural interests on the same footing as industrial interests by organizing farmers into federally sponsored and coordinated commodity cooperatives.⁴⁹ To accomplish this goal, he initiated a special session of Congress to enact the Agricultural Marketing Act,⁵⁰ which created the Federal Farm Board (“FFB”).⁵¹ The purpose of the FFB was to loan money “when needed” to the various farm cooperatives.⁵²

These cooperatives were still voluntary in nature and carried the same free-rider problems, but they were made potentially more attractive by the availability of federal loans.⁵³ This tested volunteer adherence to the farm production controls, and ultimately failed.⁵⁴

⁴¹ See generally Russell Hardin, *The Free Rider Problem*, in THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N. Zalta ed. 2003), <http://plato.stanford.edu/archives/sum2003/entries/free-rider/>.

⁴² HAMILTON, *supra* note 7, at 14-15.

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.* at 20.

⁴⁶ *Id.* at 21.

⁴⁷ U-S-history.com, *supra* note 32.

⁴⁸ *Id.*

⁴⁹ HAMILTON, *supra* note 7, at 1.

⁵⁰ Agricultural Marketing Act, ch. 24, § 1, 46 Stat. 11 (1929) (repealed 1933).

⁵¹ *Id.*

⁵² Watson, *supra* note 5, at 284.

⁵³ *Id.*

⁵⁴ *Id.*

The Great Depression brought steadily declining prices and forced the FFB to grant a series of price support measures for farmers.⁵⁵ The upheaval of the Great Depression severely hampered the ability of the FFB to create effective cooperatives, and simultaneously obscured the effects of free riders on the system.⁵⁶

After Franklin Roosevelt was elected President in 1932, the Agricultural Marketing Act of 1929 was replaced by the Agricultural Adjustment Act of 1933.⁵⁷ This Act continued price supports and the system of voluntary limits on production by farmers.⁵⁸ The fate of this Act was the same as many other initial programs of the New Deal: it was found unconstitutional by the Supreme Court.⁵⁹ The federal government tried again by enacting a mandatory system of quotas and price supports for corn, cotton, and wheat under the Agricultural Adjustment Act of 1938.⁶⁰ This act was not overturned by the Supreme Court as Congress's power to regulate agriculture was assessed differently in *Wickard v. Filburn*,⁶¹ allowing the new act to live on. The Agricultural Adjustment Act of 1938 became the "default legislation"⁶² should any future price support program come to an end "without replacement . . . legislation."⁶³

When Dwight D. Eisenhower became President in 1952, his Administration attempted to find a middle ground between the factions that wanted to remove both price supports and production limits, and those who wanted to perpetuate the price support model.⁶⁴ This compromise garnered little support from either side, and failed to make any significant change to the programs already in place.⁶⁵

⁵⁵ HAMILTON, *supra* note 7, at 1. These measures were not unlike the stop gap future farm subsidy programs. See BECKER, *supra* note 27, at 5.

⁵⁶ HAMILTON, *supra* note 7, at 147.

⁵⁷ Watson *supra* note 5, at 285; Agricultural Adjustment Act of 1933, 48 Stat. 31 (1933), *invalidated by* United States v. Butler, 297 U.S. 1 (1936).

⁵⁸ Watson, *supra* note 5, at 285.

⁵⁹ *Butler*, 297 U.S. at 78.

⁶⁰ Agricultural Adjustment Act, ch. 30, 52 Stat. 31 (1938) (codified at 7 U.S.C. §§601-05, 607-23). See also Watson, *supra* note 5, at 286.

⁶¹ 317 U.S. 111, 124-25 (1942).

⁶² Watson, *supra* note 5, at 286.

⁶³ *Id.*

⁶⁴ EDWARD L. SCHAPSMEIER & FREDERICK H. SCHAPSMEIER, EZRA TAFT BENSON AND THE POLITICS OF AGRICULTURE: THE EISENHOWER YEARS, 1953-1961, at 91-96 (1975). See also Anne B. W. Efland, *U.S. Farm Policy: The First 200 Years*, AGRIC. OUTLOOK, Mar. 2000, at 21, 25, available at <http://www.ers.usda.gov/publications/agoutlook/mar2000/ao269g.pdf>.

⁶⁵ Watson, *supra* note 5, at 287.

The Kennedy Administration ambitiously attempted to overhaul the farm subsidy system.⁶⁶ In an attempt to give farmers more real input into the subsidy process, the new system would have created input committees comprised partially of farmers that were directed to create timely subsidy proposals.⁶⁷ The rationale for this system was similar to the voluntary systems of the past.⁶⁸ It was thought that giving farmers a chance to participate in the decision-making process would encourage more farmers to act according to collective interests.⁶⁹ Increased participation, therefore, was thought to be the answer to lowering subsidies.⁷⁰ This plan, entitled the Food and Agriculture Act of 1962,⁷¹ turned out to be too ambitious for Congress to embrace, and was pared down to the point that only wheat came under its control, and even then was not accepted by farmers.⁷² Following this failure, the Food and Agriculture Act of 1965 was enacted, which created a program that exchanged subsidies for voluntary acceptance of production limits.⁷³ Despite a continued attempt to get the prices and supply of commodities under control, the government never achieved this result.⁷⁴ This effort to craft a support program that would protect farmers from the inconsistencies of a free market system, and simultaneously create the potential for farmers to benefit from that same system, could not stop prices from falling or farmers from overproducing.⁷⁵

No serious attempt was made to abandon this pattern of price supports and quotas until the Reagan Administration's Agriculture and Food Act of 1981;⁷⁶ this, too, failed to dismantle the system, and eventually looked much like its predecessors, continuing price supports and quotas through the end of the 1980s.⁷⁷ By the midterm elections of 1994, momentum had built for agricultural subsidy reform, resulting in the Federal

⁶⁶ *Id.*

⁶⁷ *Id.* at 288.

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ Food and Agriculture Act of 1962, 76 Stat. 605 (1962)(amended 1965).

⁷² Watson, *supra* note 5, at 288.

⁷³ *Id.*; Food and Agriculture Act of 1965, 79 Stat. 1187 (1965)(codified as amended in scattered sections of 7 U.S.C.).

⁷⁴ Watson, *supra* note 5, at 289.

⁷⁵ *Id.*

⁷⁶ Agriculture and Food Act of 1981, 95 Stat. 1213 (1981)(amended 1985).

⁷⁷ Watson, *supra* note 5, at 290.

Agriculture Improvement and Reform (“FAIR”) Act of 1996.⁷⁸ This act was to be the end of federal regulation of agriculture.⁷⁹ Unfortunately, history repeated itself and this laudable goal never came to fruition.⁸⁰ Agricultural prices fell unexpectedly near the end of the decade and Congress came to the rescue in the usual manner, passing “emergency appropriations” legislation.⁸¹ This “became a common recurrence in each year of the 1996 Farm Bill’s authorization,”⁸² making the end of federal regulation of agriculture appear just like its beginning.⁸³

C. *United States Commitment to the WTO*

The World Trade Organization “is the only global international organization dealing with the rules of trade between nations.”⁸⁴ In pursuit of these rules, the WTO and its members have created and continue to create agreements on various aspects of the international trade of goods and services, including agricultural goods.⁸⁵

The WTO created a descriptive framework differentiating subsidies that distort trade from those that do not.⁸⁶ This framework categorized subsidies into different colored boxes, ranging from “red box,” or forbidden subsidies, to “green box,” or allowed subsidies.⁸⁷ Due to the continuing nature of the WTO negotiations, agricultural subsidies were given an altered framework. Within this altered framework, agriculture has no red box; instead, it has an “amber box.”⁸⁸ Though not forbidden, the amber box contains subsidies that WTO member nations are committed to reducing.⁸⁹ United States’ agricultural price supports are clearly within the amber box.⁹⁰ By being a part of the WTO and its

⁷⁸ *Id.*; Federal Agriculture Improvement and Reform Act of 1996, 110 Stat. 888 (1996) (current version at 7. U.S.C. § 7201 (2006)).

⁷⁹ Watson, *supra* note 5, at 291.

⁸⁰ *Id.* at 292.

⁸¹ *Id.*

⁸² *Id.* at 292-93.

⁸³ *Id.*

⁸⁴ World Trade Organization, What is the WTO?, http://www.wto.org/english/thewto_e/whatis_e/whatis_e.htm (last visited Dec. 1, 2006).

⁸⁵ *Id.*; World Trade Organization, Legal Texts, http://www.wto.org/english/docs_e/legal_e/legal_e.htm (last visited Dec. 1, 2006).

⁸⁶ Boxes, *supra* note 2.

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ *See id.*

agreements America has committed itself, on the international stage, to reducing this kind of subsidy.⁹¹ Yet, this is the domestic sector where subsidies continue to increase.⁹²

While the WTO has not created a trade utopia,⁹³ there are clear benefits to global agreements on trade, including agricultural trade.⁹⁴ "Freer trade" lowers prices on all goods.⁹⁵ It increases productivity and fairness across economic sectors.⁹⁶

According to Edward Gresser, Director of the Progressive Policy Institute, the round of talks held in December of 2005 in Hong Kong marked "a key juncture . . . in [WTO] trade negotiations."⁹⁷ "Agricultural reform is the political heart of the [talks], and the top priority of many developing countries . . ." ⁹⁸ Poorer nations contend that the agricultural subsidies provided by rich countries, such as Japan, the United States and members of the European Union, create a surplus of goods that artificially lowers the price of certain agricultural products upon which they depend.⁹⁹

One need only look south of the border to see some of the international consequences of United States agricultural subsidies. Because of federal price supports, the price of corn exported to Mexico is much less than the unsubsidized price of corn grown in Mexico.¹⁰⁰ This pricing advantage threatens to put many small Mexican farmers out of business.¹⁰¹ Since 1994, United States corn exports to Mexico have tripled thanks in substantial part to \$10 billion in annual corn subsidies.¹⁰²

Increasing United States exports so consistently and substantially appears beneficial, but at what cost? Mexican farmers stop farming when it becomes unprofitable and must look for other work.¹⁰³ Therefore, U.S.

⁹¹ Press Release, World Trade Org., United States: September 2001 (Sept. 17, 2001), http://www.wto.org/english/tratop_e/tp_r_e/tp172_e.htm.

⁹² *Id.*

⁹³ WORLD TRADE ORG., 10 BENEFITS OF THE WTO TRADING SYSTEM 1 (2003), http://www.wto.org/english/res_e/doload_e/10b_e.pdf [hereinafter 10 BENEFITS].

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ *U.S. Interests in the WTO*, *supra* note 24, at 1.

⁹⁸ *Id.* at 5.

⁹⁹ Scott Kilman, *Crop Forecasts Grow, Heralding a Steady Climb in Subsidy Spending*, WALL ST. J., Oct. 13, 2005, at A5.

¹⁰⁰ Timothy A. Wise, *Fields of Free Trade: Mexico's Small Farmer in a Global Economy*, DOLLARS & SENSE, Nov.-Dec. 2003, at 14, 15.

¹⁰¹ *Id.*

¹⁰² Kripke, *supra* note 11, at 20.

¹⁰³ *Id.*

commodity surpluses may be driving the poor in Mexico across the United States border to pursue their livelihood.

It is not just close neighbors that feel the effects of generous United States farm subsidies. Africa, where “more than two million households depend directly on [cotton] for their livelihoods,”¹⁰⁴ also suffers from the market distorting effects of United States farm assistance.¹⁰⁵ “The global price of cotton is 20% lower than it would be without United States subsidies, according to an analysis by the International Cotton Advisory Committee.”¹⁰⁶ This price distortion marginalizes the efforts of African farmers who desperately want to be a part of the global economy.¹⁰⁷ At the same time United States subsidies were making African farmers uncompetitive, over \$3 billion American tax dollars went to aid African nations in 2003.¹⁰⁸ The United States subsidizes domestic farmers to the point of having to pay to feed foreign farmers, who without the subsidies would have been able to feed themselves. America’s domestic farm subsidies inflate the price of agricultural commodities but also increase the cost of international aid. Both of these costs are paid by American taxpayers.

The United States is not the largest subsidizer of domestic agricultural products, either in total agricultural subsidies or as a percentage of gross domestic product.¹⁰⁹ If the United States can convince the other subsidizing countries to cut or eliminate their subsidies, American farmers stand to gain substantially.¹¹⁰ This is in part because many American agricultural products do not qualify for domestic subsidies,¹¹¹ and because American farmers are “exceptionally efficient.”¹¹²

The truth is that most U.S. farmers do not receive government subsidy payments.¹¹³ Producers of just five agricultural products (corn, cotton, soybeans, rice and wheat) receive over ninety percent of U.S. farm subsidies.¹¹⁴ As of 2002, David Rockefeller, Bob Dole, former Enron CEO

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ Greenbook, *supra* note 12.

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ Cook, *supra* note 23.

¹¹² *U.S. Interests in the WTO*, *supra* note 24, at 4.

¹¹³ Cook, *supra* note 23. See also Brian Riedl, Still at the Federal Trough: Farm Subsidies for the Rich and Famous Shattered Records in 2001 (Apr. 30, 2002), <http://www.heritage.org/Research/Agriculture/BG1542.cfm> [hereinafter Riedl, Still at the Federal Trough].

¹¹⁴ Riedl, Still at the Federal Trough, *supra* note 113.

Ken Lay, Ted Turner and Scottie Pippen all received subsidy payments.¹¹⁵ These are multimillionaires getting a little help with their farms. It took over seventy years for the U.S. to turn a misguided effort to help farmers and transform it into a system that pays millionaires not to farm and simultaneously forces poor farmers to go looking for a handout. The intellectual disconnect is astounding and adds strength to the assertion that agricultural subsidies are no longer necessary.

II. THE GOALS AND FAILURES OF AGRICULTURAL PRICE SUPPORTS IN THE UNITED STATES

Throughout its development and growth, the United States' agricultural price support programs have had some important and ambitious goals. America needs to protect the "family farm" and the values it represents.¹¹⁶ We risk losing this vital part of America because farmers seem unable to cooperate in order to garner the best prices for their goods.¹¹⁷ The Agricultural Marketing Act of 1929 sought to support a framework in which farmers could bargain for prices as a body, instead of competing with each other and driving down prices.¹¹⁸ Protecting these values would also protect American economic interests by enabling domestic farmers to better compete with foreign farmers in international markets.¹¹⁹ Along this same line, supporting agriculture is sometimes thought to bolster national security.¹²⁰ America's place in the world has changed dramatically since the inception of price supports and so have the demographics of its farmers. These changes turn reasons formerly in support of price supports on their heads and now provide credible arguments for ending them.

A. *The Family Farm and Collective Bargaining Power*

Originally the price support system was intended to protect "a 'cornerstone of [American] social structure and the bulwark of [American] national institutions'" namely the "family farm."¹²¹ During the depression era, farming families represented a substantial part of the population,

¹¹⁵ *Id.* tbl.2.

¹¹⁶ HAMILTON, *supra* note 7, at 20.

¹¹⁷ *Id.*

¹¹⁸ *Id.* at 47.

¹¹⁹ Effland, *supra* note 64, at 23.

¹²⁰ HAMILTON, *supra* note 7, at 26.

¹²¹ *Id.* at 20.

so protecting an agricultural price value simultaneously sought to protect real people. Protecting that hallowed institution of Americana has continued to be a justification for price subsidies, even as the circumstances in the country have changed dramatically. In the 1930s, twenty-five percent of America's population lived and worked on farms.¹²² As of 2001, less than two percent of the American population were farm residents.¹²³

At minimum, the price support system has failed to protect the number of family farms. The truth is that most subsidies do not go to family farmers;¹²⁴ small family farms receive almost no farm subsidies because "[t]hey grow the wrong crops."¹²⁵ These farms just do not qualify. The rationale that price supports protect family farms and their values is simply political rhetoric.¹²⁶

Subsidies support the agricultural sector, but this support is no longer equivalent to concern for the family farm. Eight percent of farms generate seventy-two percent of farm revenue.¹²⁷ Price supports are simply federal welfare for large agribusiness concerns.¹²⁸ During 1996-1998 the average farmer receiving any subsidy received \$1200.¹²⁹ Those agricultural organizations which benefitted the most from subsidies were the largest farmers. They comprised only ten percent of farmers but garnered seventy-two percent of total subsidies.¹³⁰ Further evidence of just how select a group receives the bulk of the subsidies comes from the Environmental Working Group's congressional district analysis which shows the congressional districts that receive the most agricultural aid.¹³¹ Between 1995 and 2004, twenty-two federal districts out of a total 435,

¹²² BECKER, *supra* note 27, at 5.

¹²³ *Id.*

¹²⁴ Brian M. Riedl, Farm Subsidies vs. National Security (May 27, 2004), <http://www.heritage.org/Press/Commentary/ed052704a.cfm> [hereinafter Riedl, Farm Subsidies vs. National Security].

¹²⁵ Cook, *supra* note 23.

¹²⁶ See Riedl, Farm Subsidies vs. National Security, *supra* note 124.

¹²⁷ BECKER, *supra* note 27, at 5.

¹²⁸ Brian Riedl, Still at the Federal Trough, *supra* note 113.

¹²⁹ ENVTL. WORKING GROUP, GREEN ACRE\$: HOW TAXPAYERS ARE SUBSIDIZING THE DEMISE OF THE FAMILY FARM (2005), <http://www.ewg.org/reports/greenacres/intro.html>.

¹³⁰ Press Release, Env'tl. Working Group, New EWG Farm Subsidy Database Reignites Reform Efforts Analysis Examines "Decade of Dependency" For Biggest Farms and Handful of Congressional Districts (Nov. 1, 2005), <http://www.ewg.org/farm/findings/php>.

¹³¹ *Id.*

or five percent, received more than half the total of federal agricultural subsidies, for a total of \$69 billion.¹³²

The need to enable farmers to bargain collectively has also become far less imperative. The vast majority of agricultural products are produced by less than ten percent of the farms.¹³³ Price support programs have achieved the collective bargaining effect by encouraging farmers to consolidate into large agribusiness.¹³⁴ Large agribusinesses do not need help bargaining.¹³⁵ They are powerful organizations that exercise their power and walk off with millions of American tax dollars.¹³⁶

B. Protecting International Economic Interests and National Security

Protecting the United States' economy is important and has been used as a reason to continue price supports. "[T]he economic health of farmers has become increasingly tied" to international markets.¹³⁷ The American farmer counts on exporting a substantial amount of produce.¹³⁸ If the United States continues to support the price of its agricultural products our trade partners will likely retaliate with their own price supports.¹³⁹ This is the kind of escalation that raises food prices unnecessarily,¹⁴⁰ and stands in opposition to the trade policies that the United States has embraced as a member of the WTO.¹⁴¹ When these programs began, there existed a perception that stabilizing food and fiber prices was necessary to ensure enough supply at affordable prices.¹⁴² In a world of multilateral agreements, such as the WTO accords, continuing subsidies put the international markets that domestic farmers count on at risk.¹⁴³

¹³² Environmental Working Group, Twenty-two Congressional Districts Collected Half of All Farm Subsidies, <http://www.ewg.org/farm/cdanalysis.php> (last visited Dec. 1, 2006).

¹³³ BECKER, *supra* note 27, at 5 (stating that "8% of all U.S. Farms [account for] 72% of all farm sales").

¹³⁴ See Debra Lyn Bassett, *The Politics of the Rural Vote*, 35 ARIZ. ST. L.J. 743, 746 n.10, 773 (2003).

¹³⁵ Press Release, Env'tl. Working Group, *supra* note 130.

¹³⁶ *Id.*

¹³⁷ BECKER, *supra* note 237, at 5.

¹³⁸ *U.S. Interests in the WTO*, *supra* note 24, at 1.

¹³⁹ See Jose Sergio Osse, 'Sacred ground?': WTO ruling energizes Brazilians, DELTA FARM PRESS, Oct. 7, 2005, at 17.

¹⁴⁰ 10 BENEFITS, *supra* note 93, at 5.

¹⁴¹ *Id.* at 13.

¹⁴² BECKER, *supra* note 27, at 5.

¹⁴³ See generally 10 BENEFITS, *supra* note 93.

Legislators often indicate that agricultural price supports increase national security.¹⁴⁴ While prices of agricultural products have never been more stable, America spends millions to inflate agricultural prices instead of spending money to increase the security of the nation's cities.¹⁴⁵ Therefore, a policy of price supports runs counter to national security interests.¹⁴⁶

III. INTRODUCTION TO AGRICULTURAL ALTERNATIVES TO SUBSIDIES

Price supports for agricultural commodities fail to achieve the goals asserted to justify them.¹⁴⁷ While saving the twenty-three billion dollars that will be spent on subsidies in 2006 alone¹⁴⁸ might be reason enough for some to demand the end of farm subsidies, more than just fiscal concerns support that case. Price supports hurt America's negotiating position in WTO talks, not only for agricultural products but for all exported products.¹⁴⁹ In addition, price supports encourage over-production.¹⁵⁰ For some commodities, this encourages environmentally dangerous levels of fertilization and pesticide use.¹⁵¹ Finally, price supports encourage farmers to stay with low risk crops whose prices are guaranteed instead of innovating¹⁵² towards crops that are both profitable and more environmentally sound.¹⁵³

This stifling of creativity leads to the most important assertion of this Note. Ending agricultural price supports will not cripple America or American farmers. There are numerous unsubsidized agricultural opportunities for American farmers that are more environmentally-friendly, more profitable and address some of the concerns that price supports claim but fail to address.¹⁵⁴

Two of these opportunities exist with agriculturally-based alternative fuels. America currently depends on foreign imports for more than

¹⁴⁴ Riedl, *Farm Subsidies vs. National Security*, *supra* note 124.

¹⁴⁵ *Id.*

¹⁴⁶ 10 BENEFITS, *supra* note 93, at 2.

¹⁴⁷ *See supra* Part II.

¹⁴⁸ Kilman, *supra* note 99.

¹⁴⁹ Griswold, *supra* note 20.

¹⁵⁰ *Id.*

¹⁵¹ Hickey & Chan, *supra* note 21.

¹⁵² Richard Manning, *American Farm Subsidies Squelch Innovation* (Jan. 9, 2003), <http://www.landinstitute.org/vnews/display.v/ART/2003/01/09/3e245943d6c5f>.

¹⁵³ Zachary, *supra* note 18.

¹⁵⁴ *See infra* Part III.

half of its oil.¹⁵⁵ Many groups, including environmentalists,¹⁵⁶ farmers,¹⁵⁷ and automakers¹⁵⁸ are addressing the benefits of using agriculturally-generated fuels. Ethanol, which is pure alcohol derived from plant sugars,¹⁵⁹ is already used in many states to add oxygen content and reduce carbon emissions.¹⁶⁰ Biodiesel is made through a process called transesterification, where fuel is derived from agricultural fats.¹⁶¹ Biodiesel can be used in place of diesel fuel derived from oil.¹⁶² Each of these opportunities has different costs and benefits which will be addressed below.

Another potential option for farmers is industrial hemp. Industrial hemp can be used to make biodiesel but has other beneficial uses.¹⁶³ Unfortunately, it brings with it greater legal obstacles than other agricultural fuel sources.¹⁶⁴ Currently industrial hemp is illegal to grow in the United States, but legal to import.¹⁶⁵ Legalizing industrial hemp will require a concerted effort demanding that Congress reclassify it as a plant distinct from marijuana.¹⁶⁶ In the balance are the need to control illegal drugs and the potential benefits of legal industrial hemp as a crop.¹⁶⁷ When critically analyzed, it is clear that industrial hemp is not a drug. Its agricultural benefits demand its legalization.¹⁶⁸

None of these products will save every farmer who now depends on price supports. Together with many other unsubsidized agricultural opportunities, these examples illustrate how price supports not only

¹⁵⁵ Mark Clayton, *Rising Call: Cut US Oil Imports*, CHRISTIAN SCI. MONITOR, May 5, 2005, at 1, available at <http://www.csmonitor.com/2005/0505/p01s04-usfp.html>.

¹⁵⁶ Todd Hartman, *Ethanol Measure Advances*, ROCKY MOUNTAIN NEWS, Mar. 3, 2006, at 24A.

¹⁵⁷ Press Release, Ind. Soybean Brd., Soybean Farmers and State Geared to Make Indiana the 'Texas of Alternative Fuels' (May 20, 2005), <http://www.indianasoybeanboard.com/texas.html>.

¹⁵⁸ Karen Lundegaard, *Ford, GM Make Big Push to Promote 'Flex-Fuel' Vehicles*, WALL ST J., Jan. 10, 2006, at B1. See also Mark Thompson, *Auto Makers Driving to the Greener Side* (Nov. 28, 2000), <http://www.socialfunds.com/news/article.cgi/article438.html>.

¹⁵⁹ American Coalition for Ethanol, *Frequently Asked Questions*, http://www.ethanol.org/documents/EthanolFAQs_000.pdf (last visited Dec. 1, 2006).

¹⁶⁰ *Id.*

¹⁶¹ National Biodiesel Board, *Frequently Asked Questions*, <http://www.biodiesel.org/resources/faq/default.shtm> (last visited Dec. 1, 2006).

¹⁶² *Id.*

¹⁶³ Jim Bauder & Linzy Carlson, *Hemp: Many Possibilities as an Alternative Crop*, Oct. 3, 2001, <http://www.montana.edu/wwwpb/ag/baudr318.html>.

¹⁶⁴ Donna Leinwand, *'Industrial' Hemp Support Takes Root*, USA TODAY, Nov. 22, 2005, at 3A.

¹⁶⁵ *Id.*

¹⁶⁶ See *id.*

¹⁶⁷ *Id.*

¹⁶⁸ *Id.*

hold American farmers back, but also keep farmers from contributing to solutions for America's most pressing concerns.

A. *Ethanol*

1. The Potential Benefits

Greater use of ethanol as a fuel has many important benefits. It could reduce American dependence on imported oil.¹⁶⁹ This would lower America's annual deficit and increase national security.¹⁷⁰ Domestic refineries of ethanol would create highly skilled jobs and provide a substantial boost to the economy.¹⁷¹ Ethanol use can also improve public health and protect the environment.¹⁷²

America is projected to import as much as sixty-eight percent of its oil by the year 2010.¹⁷³ The trade deficit related to these imports was one hundred billion dollars in 2002 alone.¹⁷⁴ In addition to the cost of simply importing oil, America must pay to protect oil at its sources¹⁷⁵ and while in transit to its final destination in America.¹⁷⁶ This does not include the costs associated with local and global pollution created by America's heavy use of oil. These costs are only a part of the argument for domestic alternative fuels.

Ethanol is already produced and refined domestically and the rates of both production and refinement are steadily increasing.¹⁷⁷ Domestic production provides jobs¹⁷⁸ and those jobs employ exponentially more people

¹⁶⁹ See Brian Jennings, *The Case for Ethanol* (Nov. 11, 2005), http://www.forbes.com/energyspecial/2005/11/15/energy-ethanol-commentary_cx_1116energy_jennings.html.

¹⁷⁰ See *id.*

¹⁷¹ *Id.*; Mark Steil, *State Faces National Hurdles in Seeking Increase Ethanol Use* (Jan. 23, 2005), http://news.minnesota.publicradio.org/features/2005/01/24_steilm_ethanol.

¹⁷² CLEAN FUELS DEV. COAL., *ETHANOL FACT BOOK 26* (2003), available at <http://www.ethanolcrossamerica.net/2003EthanolFactBook.pdf> [hereinafter *ETHANOL FACT BOOK*].

¹⁷³ Erica Swisher, *The Real Cost of Oil*, *ETHANOL TODAY*, Aug. 2005, at 20, 22, available at http://www.ethanoltoday.com/pdf/Real_cost_of_oil_Aug_05.pdf.

¹⁷⁴ Jennings, *supra* note 169.

¹⁷⁵ Jennifer Loven, *Bush Gives New Reason for Iraq War*, *BOSTON GLOBE*, Aug. 31, 2005, available at http://www.boston.com/news/nation/articles/2005/08/31/bush_gives_new_reason_for_iraq_war.

¹⁷⁶ See MICHAEL T. KLARE, *RESOURCE WARS: THE NEW LANDSCAPE OF GLOBAL CONFLICT* 6 (2001).

¹⁷⁷ Jennings, *supra* note 169.

¹⁷⁸ Iowa Corn Growers Association, *Ethanol Facts*, http://www.iowacorn.org/ethanol/ethanol_3a.html (last visited Dec. 1, 2006).

in support of that production.¹⁷⁹ While ethanol alone cannot eliminate American reliance on oil imports, it is an important part of reducing them.¹⁸⁰

Environmentally, ethanol's use in blended automotive fuel reduces both carbon monoxide and carbon dioxide emissions by nearly thirty percent,¹⁸¹ reduces noxious fumes associated with gasoline burning, and lowers the amount of particulate matter released into the atmosphere.¹⁸² The use of ethanol reduced America's total emission of greenhouse gases by almost eight million tons in 2005.¹⁸³

Ethanol use is playing a large role in reducing the pollutive effects of fossil fuel use. Ethanol production can also reduce another environmental concern: animal waste. In Hereford, Texas, the 6,300 tons of animal waste created daily by cattle cause serious environmental problems.¹⁸⁴ A new ethanol plant has agreed to burn that waste in order to power its processing plant.¹⁸⁵ The plant waste from the corn used to make ethanol is suitable for cattle feed.¹⁸⁶ This ethanol plant will actually provide feed for the cattle, and in turn use the waste of these cattle to power its plant.¹⁸⁷

2. Obstacles to Expanded Use of Ethanol

There are clear obstacles to wider use of ethanol. Many motorists fear that ethanol would damage their cars.¹⁸⁸ This fear is bolstered by automobile manufacturers threats to void car warranties if motorists use an ethanol mixture greater than ten percent in their cars.¹⁸⁹ Cars travel fewer miles per gallon with ethanol than they do with gasoline.¹⁹⁰ Critics

¹⁷⁹ Jennings, *supra* note 169.

¹⁸⁰ *Id.*

¹⁸¹ Pacific Ethanol Inc., Why Ethanol?, http://www.pacificethanol.net/_content/whyEthanol.php (last visited Dec. 1, 2006).

¹⁸² Ethanol Facts, *supra* note 178.

¹⁸³ American Coalition for Ethanol, *supra* note 159.

¹⁸⁴ Steve LeVine, *Cows in Hereford Are All Fired Up About Ethanol Plant: They Produce a Cheap Fuel Nobody Has Wanted; A Cattle-Feed Byproduct*, WALL ST. J., Jan. 24, 2006, at A1.

¹⁸⁵ Elizabeth Esfahani, *From Cow Pies to Clean Power*, BUSINESS 2.0, Feb. 1, 2006, at 24, 24.

¹⁸⁶ LeVine, *supra* note 184.

¹⁸⁷ *Id.*

¹⁸⁸ Press Release, Nat'l Roads and Motorists Ass'n, Member Hotline to Report Ethanol Damage (Dec. 20, 2002), http://www.mynrma.com.au/cps/rde/xchg/SID-3F5768EC-7EF3AB28/mynrma/hs.xsl/193_releases2002_021220b_1.htm.

¹⁸⁹ Steil, *supra* note 171.

¹⁹⁰ Annette Meeks, *Many Reasons to Oppose New Ethanol Mandate*, MINN. STAR TRIBUNE, Feb. 1, 2005, available at <http://www.amexp.org/news/op-eds/2005-02-01.php>.

suggest that greater ethanol use is not a great environmental solution and is, in fact, "an inefficient use of our nation's resources."¹⁹¹

Ethanol in its pure form is corrosive and often damages rubber hoses and other plastic car parts, but the added cost of building a car that can handle eighty-five percent ethanol fuel is about two hundred dollars.¹⁹² While older cars will need modification if they are going to run on fuel with a high ethanol content, updating cars for compliance with changing federal fuel regulations is not new. When leaded fuel was banned in 1995, many older cars used soft-metal engine valves.¹⁹³ At the time of the ban it was thought that some expense would be required to compensate for the absence of lead and its deleterious effect on these soft-metal valves.¹⁹⁴ This projected expense did not deter the ban¹⁹⁵ and it should not deter costs necessary to promote the greater use of ethanol.

Nearly every automaker in the world allows the use of ethanol, or E-10, within their warranty.¹⁹⁶ The price of ethanol has been higher than gasoline,¹⁹⁷ but it will only become more competitive as world oil supplies decrease.¹⁹⁸ The lower fuel efficiency of ethanol is not as straightforward a market problem as price per gallon, but the same logic applies.¹⁹⁹ It should be understood in terms of dollars per mile. As oil prices rise, the dollar per mile cost of ethanol will become more competitive.²⁰⁰

Lastly, the environmental risks of any agricultural program should be carefully considered. Automobiles and their combustion-engine brethren are some of the worst sources of air pollution.²⁰¹ Ethanol, when used in these engines, eliminates most of that pollution.²⁰² The balance must be struck between the clear environmental benefits and the speculative fears

¹⁹¹ *Id.*

¹⁹² Adam Lashinsky et al., *How to Beat the High Cost of Gasoline: Forever!*, FORTUNE, Feb. 6, 2006, at 74.

¹⁹³ WORLD BANK GROUP, POLLUTION PREVENTION AND ABATEMENT HANDBOOK 93 (1998).

¹⁹⁴ *Id.*

¹⁹⁵ *Id.*

¹⁹⁶ National Corn Growers Association, Consumer Myth-Busters, <http://www.ncga.com/ethanol/vehicle/mythbusters.asp> (last visited Dec. 1, 2006).

¹⁹⁷ James R. Healey, *Cost of E85 Fuel is Higher Than Gasoline*, USA TODAY, Feb. 16, 2006, http://www.usatoday.com/money/industries/energy/2006-02-14-e85-usat_x.htm.

¹⁹⁸ See, e.g., Bob Tita, *Alternative-Fuel Talk Boosts ADM 9*, CRAIN'S CHICAGO BUS., Mar. 20, 2006, at 4.

¹⁹⁹ See generally Lashinsky, *supra* note 192, at 74.

²⁰⁰ *Id.*

²⁰¹ Janet Wilson, *Study Doubles Estimate of Smog Deaths*, L.A. TIMES, Mar. 25, 2006, at B1.

²⁰² ETHANOL FACT BOOK, *supra* note 178, at 26.

of increased ethanol use. These concerns have merit but should not stand in the way of allowing farmers to contribute to America's environment, national security and trade relations by increasing ethanol production.

B. Biodiesel

1. Potential Benefits

Another potentially profitable and environmentally-beneficial agricultural product is biodiesel.²⁰³ Like diesel made from petroleum, biodiesel is a heavier product than its alternative fuel cousin, ethanol.²⁰⁴ It is made from the oily part of plants or animal bi-products.²⁰⁵ It burns cleaner than regular diesel, thus mitigating damage to the environment and providing lower health risks to humans than petroleum-based diesel.²⁰⁶ It can often be made at a competitive cost to petroleum diesel and is far safer to store due to its significantly lower flash point.²⁰⁷ Finally, biodiesel provides the same benefits as ethanol to the American trade imbalance, and in the same way, contributes to American national security.²⁰⁸

Biodiesel can be made from a wide variety of agricultural products. These range from the ordinary soy bean²⁰⁹ to bizarre-sounding turkey byproducts,²¹⁰ and even extend to include the currently illegal industrial hemp.²¹¹ This source diversity provides the potential for almost every farmer to be a part of the biodiesel supply chain.²¹²

²⁰³ National Biodiesel Board, Frequently Asked Questions, *supra* note 161.

²⁰⁴ *Id.*

²⁰⁵ *Id.*

²⁰⁶ *Id.*

²⁰⁷ Willie Nelson's Biodiesel: Products, <http://www.wnbiodiesel.com/products.html> (last visited Dec. 1, 2006).

²⁰⁸ *See supra* Part II.

²⁰⁹ Clayton Collins, *Fill 'Er Up With Gasohol, Biodiesel, E85 . . .*, CHRISTIAN SCI. MONITOR, Mar. 23, 2006, at 13, available at <http://www.csmonitor.com/2006/0323/p13s01-sten.html>.

²¹⁰ Patrick Barta & Sarah Nassauer, *Turkey in the Tank: High Price of Gasoline is a Boon for Biofuels*, WALL ST. J., Oct. 28, 2005, at A1; Rebecca Kessler, *Talking Turkey about Biofuels*, EMAGAZINE.COM, Nov.-Dec. 2005, <http://www.emagazine.com/view/?2921>.

²¹¹ *See infra* Part III.C.

²¹² *See* Press Release, Cargill Inc., New Shareholders For Greenergy Biodiesel Production Business (Feb. 28, 2006), http://www.cargill.com/news/news_releases/060228_greenergy.htm.

Biodiesel has a much lower impact on the environment than petroleum-based diesel.²¹³

The use of biodiesel in a conventional diesel engine results in substantial reduction of unburned hydrocarbons, carbon monoxide, and particulate matter compared to emissions from diesel fuel. In addition, the exhaust emissions of sulfur oxides and sulfates (major components of acid rain) from biodiesel are essentially eliminated compared to diesel.²¹⁴

Its use also reduces global warming due to seventy-eight percent lower carbon dioxide emissions than petroleum-based diesel.²¹⁵ Biodiesel emissions contain significantly fewer carcinogens, fifty percent less benzoanthracene, and seventy-five to eighty-five percent less polycyclic aromatic hydrocarbons.²¹⁶ The beneficial environmental and human health impact of biodiesel is significant.

Additional benefits of biodiesel are its competitive cost and the promotion of American trade and national security interests. When ultra-low sulfur diesel became available across the United States in 2006,²¹⁷ the no-sulfur content in biodiesel made it very competitive as a component in all diesel production.²¹⁸ Biodiesel production can be done domestically, thus reducing both dependence on foreign oil and our trade deficit due to oil imports. A lower trade deficit puts America in a more certain position in the world economy as the rate of our indebtedness slows.²¹⁹ Lowering United States dependence on foreign oil would diminish the need to protect resources abroad, and the attendant expenses.²²⁰

²¹³ National Biodiesel Board, Frequently Asked Questions, *supra* note 161.

²¹⁴ *Id.*

²¹⁵ *Id.*

²¹⁶ *Id.*

²¹⁷ See Mark Maynard, *Low-Sulfur Fuel May Clear Road for Diesel Cars*, SAN DIEGO UNION-TRIB., Feb. 7, 2006, available at http://www.signonsandiego.com/uniontrib/20060207/news_1n7diesel.html.

²¹⁸ Energy Information Center, Biodiesel Performance, Costs, and Use, <http://www.eia.doe.gov/emeu/plugs/plbiodsl.html> (last visited Dec. 1, 2006).

²¹⁹ See Benjamin M. Friedman, *The Deficit Danger*, HARV. MAG., Jan.-Feb. 2004, available at <http://www.harvardmagazine.com/on-line/010449.html>. But see John E. Tamny, Global Misunderstanding (Jan. 10, 2005), http://www.nationalreview.com/nrof_comment/tamny200501100823.asp.

²²⁰ Klare, *supra* note 176.

2. Obstacles to Biodiesel

America must overcome several hurdles before it achieves widespread adoption of biodiesel technology, in particular, consumer concerns.²²¹ These concerns include automotive warranty coverage, mechanical compatibility, and locating fuel.²²²

As recently as March of 2005, Volkswagen extended automobile warranties to cover use of up to five percent biodiesel.²²³ This is in keeping with the automaker's recognition that environmentally safe fuels are important to consumers.²²⁴ While this is not as good as a warranty of total use, it is a step towards easing consumer concerns about their car warranties.

According to the National Biodiesel Board ("NBB"), biodiesel can be used in any diesel motor.²²⁵ The NBB does warn that some minor modifications may be required, including initial monitoring of fuel filters, but this in no way impairs the functionality of biodiesels in diesel engines.²²⁶ Locating this fuel can also be challenging for some consumers, due to its limited national distribution.²²⁷ The NBB provides a list of retail locations on its website.²²⁸

C. *Industrial Hemp*

One of the many potential sources of biodiesel is industrial hemp.²²⁹ In addition to being a fuel source, industrial hemp is widely used in the health food industry²³⁰ by a diverse cadre of manufacturers for synthesizing

²²¹ See Linda A. Smyth, Remarks at Southeastern Alternative Fuels Conference Panel on Biodiesel Obstacles (June 6, 2005), <http://eerc.ra.utk.edu/etcfc/seaftf/docs/05workshop/LindaSmyth-BiofuelsScript.doc>.

²²² *Id.*

²²³ Press Release, Nat'l Biodiesel Bd., Volkswagen Extends Warranty Coverage for B5 Biodiesel Fuel (Mar. 17, 2005), http://www.biodiesel.org/resources/pressreleases/pas/20050318_VW_B5.pdf.

²²⁴ *Id.*

²²⁵ National Biodiesel Board, Frequently Asked Questions, *supra* note 161.

²²⁶ *Id.*

²²⁷ National Biodiesel Board, Biodiesel Distributors, <http://www.biodiesel.org/buyingbiodiesel/distributors/default.shtml> (last visited Dec. 1, 2006).

²²⁸ *Id.*

²²⁹ Matt Peiken, *Hemp-Powered Car Pulls into Town*, ST. PAUL PIONEER PRESS, Aug. 8, 2001, at B2, available at <http://www.mattpeiken.com/Journalism/Scene-Trend/hemp.htm>.

²³⁰ Kristin V. Montalvo, *Naturally Speaking: Trend Report: Natural Products Expo East*, GOURMET RETAILER, Nov. 1, 2005, available at http://www.gourmetretailer.com/gourmetretailer/search/article_display.jsp?vnu_content_id=1001393340.

almost all product components derived from petroleum.²³¹ It is also an environmentally-friendly replacement fiber in textiles.²³² The public often confuses this agricultural product with the drug marijuana.²³³ A likely explanation for this is that for drug enforcement purposes all varieties of the cannabis sativa plant are indistinguishable, and thus illegal.²³⁴ This confusion is unwarranted due to the two plants' plainly observable trait differences and differing cultivation practices.²³⁵ A long history of government policy, which some allege is overt propaganda,²³⁶ has put this product outside the basket of potential agricultural goods available for American farm production. Many states have sought to legalize industrial hemp²³⁷ and, as recently as 2005, a bill was brought before Congress in an attempt to distinguish industrial hemp from marijuana.²³⁸

While industrial hemp is not without its critics and legal hurdles, it has many benefits that, if fully recognized, could revitalize it as a part of American agriculture.²³⁹ Combining potential profitability for farmers in this unsubsidized crop,²⁴⁰ its beneficial impact on the environment,²⁴¹ national security,²⁴² and international trade,²⁴³ industrial hemp brings a package of valuable attributes rarely found in a single commodity.²⁴⁴

²³¹ See Advocacy One, Industrial Hemp: Once Promoted, Now Maligned (or "Scorned"), <http://www.advocacyone.org/hemp.html> (last visited Dec. 1, 2006).

²³² Hemptex, <http://www.hemptex.com/> (last visited Dec. 1, 2006).

²³³ Anne W. Wilke, *Rethinking Hemp*, E, July-Aug. 1996, at 48, 48.

²³⁴ Controlled Substance Act of 1970, 21 U.S.C. § 802(16) (2006).

²³⁵ North American Industrial Hemp, Hemp Facts, http://www.naihc.org/hemp_information/hemp_facts.html (last visited Dec. 1, 2006).

²³⁶ ERIC SCHLOSSER, REEFER MADNESS: SEX, DRUGS, AND CHEAP LABOR IN THE AMERICAN BLACK MARKET 68 (2003).

²³⁷ See, e.g., A.B. 1147, 2005-06 Assemb., Reg. Sess. (Cal. 2006); H.B. 55, 2005 H.R., 159th Sess (N.H. 2005); H.B. 455, 2005 H.R., 68th Sess. (Vt. 2005).

²³⁸ Industrial Hemp Farming Act of 2005, H.R. 3037, 109th Cong. (2005).

²³⁹ Jim Hightower, *High on Hemp*, HUMANIST, Sept.-Oct. 2004, at 4.

²⁴⁰ VALERIE L. VANTREESE, INDUSTRIAL HEMP: GLOBAL MARKETS AND PRICES 32 (1997), http://www.uky.edu/Ag/AgEcon/pubs/res_other/hemp97.pdf.

²⁴¹ See L.A.P. Lotz et al., *Reduction of Growth and Reproduction of *Cyperus Esculentus* by Specific Crops*, 31 WEED RES. 153 (1991).

²⁴² See Shelby F. Thames, Hemp as a Potentially Important Crop and Area of Research, <http://naihc.org/Thames0305.pdf> (last visited Dec. 1, 2006) (arguing that hemp oil could easily meet the petroleum needs of America); see also Klare, *supra* note 176 (asserting that national security costs include defending the sources of imported oil).

²⁴³ See NAT'L CONF. OF STATE LEG., INDUSTRIAL HEMP POLICY (2000), available at http://www.votehemp.com/pdf/ncsl_hemp_res.pdf.

²⁴⁴ See generally Lynn Osburn, Towards a Green Economy, http://www.globalhemp.com/Archives/Essays/General/towards_a_green_economy.html (last visited Dec. 1, 2006).

1. Hemp as Fuel

Alternatives to petroleum-based fuels support both economic and environmental interests of the United States.²⁴⁵ Industrial hemp can be an important source of American alternative fuel.²⁴⁶ Before addressing the legal obstacles to its implementation as a crop, this Note will discuss its unique benefits.

Hemp can be grown everywhere in the United States, curtailing or eliminating the need for oil imports and hedging against the drastic market supply fluctuations that are common in the petroleum market.²⁴⁷ The environmental impact of industrial hemp as a crop is significantly lower than the impact of extracting petroleum.²⁴⁸ The fuel derived from industrial hemp is biodegradable, eliminating the disposal concerns created by petroleum.²⁴⁹ When industrial hemp is used as a substitute for petroleum based fuel, emissions are almost completely eliminated.²⁵⁰ As a fuel source hemp brings a great deal to the table, and this creates an attractive option for farmers looking for a profitable direction to turn if crop subsidies are ended.²⁵¹

2. Other Hemp Products

In addition to use as a fuel, hemp is used in a number of unusual places such as organic and health foods, textiles and other non-fuel petroleum derivatives. Hemp seed oil is high in omega-3 fatty acids and is more digestible than other plant sources.²⁵² It is also a good plant source of

²⁴⁵ Energy Efficiency and Renewable Energy Alternative Fuel Data Center, U.S. Dep't of Energy, Biodiesel Benefits, http://www.eere.energy.gov/afdc/altfuel/bio_benefits.html (last visited Dec. 1, 2006).

²⁴⁶ BELIZE DEV. TRUST, HEMP IS AN EXCELLENT BIO DIESEL FUEL! (2002), available at <http://www.ambergriscaye.com/BzLibrary/trust512.html>.

²⁴⁷ Joel Miller, Put Hemp in Your Tank (Jan. 9, 2001), http://www.worldnetdaily.com/news/article.asp?article_id=21251.

²⁴⁸ *Id.*

²⁴⁹ *Id.*

²⁵⁰ *Id.*

²⁵¹ *Id.*

²⁵² Meredith Goad, *Look! Up on the Shelves! It's Fiber-Rich! Filled with Flavonoids! Loaded with Lycopene! It's . . . SUPER FOOD!*, PORTLAND PRESS HERALD (Maine), Feb. 26, 2006, at G1.

protein.²⁵³ These attributes are being touted in a host of food products including protein powder,²⁵⁴ pretzels,²⁵⁵ food bars and milkshake mix.²⁵⁶

Food derived from an agricultural product seems quite natural, but the potential for industrial hemp goes far beyond food and is already being exploited today.²⁵⁷ “[I]ndustrial hemp can be used to make paper, clothing, rope, food products, biocomposite products that can replace fiberglass and plastics, biofuel to produce ethanol, and body-care products.”²⁵⁸ Major auto makers Ford, Daimler/Chrysler, and BMW all use hemp in the fabrication of automobile interior parts.²⁵⁹ These products are expanding the market for industrial hemp and until it is legalized in the United States, American farmers can not reap the benefits of this expansion.²⁶⁰

Textile production is another area where industrial hemp could serve a number of functions in the interest of the United States. “Cotton is the single best selling fiber in America today, outselling all man-made fibers combined.”²⁶¹ Except for coffee, cotton requires more pesticide than any other crop in the world.²⁶² The incentive to protect cotton with so much pesticide could lie in the fact that cotton is one of the most subsidized crops in America.²⁶³ Subsidizing the most pollutive crop in America’s agricultural arsenal is self destructive, but there is hope. These subsidies have been ruled “illegal under existing trade rules” by the WTO.²⁶⁴ America should live up to its commitment to free trade and end these illegal subsidies. This Note argues for an end to subsidies despite the fact that the political will to end them is far from certain.²⁶⁵

²⁵³ Leinwand, *supra* note 164.

²⁵⁴ Manitoba Harvest, <http://www.manitobaharvest.com> (last visited Dec. 1, 2006).

²⁵⁵ Hempzels, <http://www.hempzels.com> (last visited Dec. 1, 2006).

²⁵⁶ Nutiva, <http://www.nutiva.com> (last visited Dec. 1, 2006).

²⁵⁷ Larry Mitchell, *Local Ag Leader Sees Benefits in Growing Hemp*, OROVILLE MERCURY REG. (Cal.), Jan. 29, 2006.

²⁵⁸ *Id.*

²⁵⁹ Mark Leno, *What’s Matt Smokin’?*, SF WEEKLY, Apr. 13, 2005, available at <http://www.sfweekly.com/Issues/2005-04-13/news/postscript.html>.

²⁶⁰ Dan Gorenstein, *Hemp Market Grows, U.S. on Sidelines* (New Hampshire Public Radio broadcast May 5, 2005), available at <http://www.nhpr.org/?q=node/8728>.

²⁶¹ Cotton Inc., *Did You Know*, <http://www.cottoninc.com/DidYouKnow/?S=AboutCotton&Sort=0> (last visited Dec. 1, 2006).

²⁶² Consumer Guide to Organic Cotton Clothing and Bedding, <http://www.bodyfueling.com/ARTICLES/cotton1> (last visited Dec. 1, 2006).

²⁶³ Editorial, *Those Cotton-Picking Subsidies*, WASH. TIMES, Mar. 14, 2005, at A18.

²⁶⁴ *Id.*

²⁶⁵ Cook, *supra* note 23.

“[H]emp could replace cotton.”²⁶⁶ The technology for processing hemp is less developed than cotton processing. But as the world market for hemp increases, technologies like Crailar[®],²⁶⁷ an enzyme for processing hemp, will continue to develop. Without cotton price supports, American farmers would be forced to examine more cost effective commodities and perhaps reexamine pesticide use in general if it were no longer a form of asset protection.²⁶⁸ If hemp were a legal alternative, the technology to process it effectively would continue to develop.²⁶⁹

Hemp can provide a legitimate source of fiber without use of any pesticide.²⁷⁰ It is far more versatile than cotton²⁷¹ and in spite of its legal status, hemp is a popular textile fiber.²⁷² All of these uses support the argument that use of industrial hemp as a legal yet unsubsidized agricultural commodity would benefit American farmers.

3. Obstacles to Hemp

The legal obstacles to American production of industrial hemp are considerable. The Drug Enforcement Administration does not distinguish industrial hemp from marijuana, making it illegal to grow in the United States.²⁷³ Several arguments in favor of this stance seem quite reasonable on their face. First, industrial hemp and marijuana are closely related plants.²⁷⁴ In the field, it is extremely difficult to distinguish between the two varieties.²⁷⁵ Second, industrial hemp, though low in THC content, can be converted for drug use.²⁷⁶ Finally, some would argue that legalizing

²⁶⁶ Eli Anthony, *Hemp for Victory*, <http://www.thegreenguide.org/article/goods/clothing> (last visited Dec. 1, 2006).

²⁶⁷ Jerry Kroll, *Collaboration to Commercialize Textile Fiber Technology: Hemptown Clothing Inc; Crailar Sustainable Fiber Technology*, *ADVANCED MFG. TECH.*, Jan. 15, 2006, at 7.

²⁶⁸ See Manning, *supra* note 152.

²⁶⁹ See National Research Council Canada, *Cover Me with Hemp* (July 8, 2004), <http://www.globalhemp.com/News/2004/July/cover-me-with-hemp.php>.

²⁷⁰ Kroll, *supra* note 267.

²⁷¹ See *supra* Part III.C.1-2.

²⁷² See, e.g., *Canadians Innovate with Hemp Textiles*, *NAT. LIFE*, Sept.-Oct. 2004, at 25, available at <http://www.naturallifemagazine.com/0410/SeptOct04.pdf>.

²⁷³ 21 U.S.C. § 802(16) (2006).

²⁷⁴ See Press Release, Drug Enforcement Admin., *The Industrial Use of Hemp* (Mar. 12 1998), <http://www.usdoj.gov/dea/pubs/pressrel/pr980312.htm>.

²⁷⁵ Leinwand, *supra* note 164.

²⁷⁶ Notice of Denial of Petition, 66 Fed. Reg. 20,038 (Dep't of Justice Apr. 18, 2001).

industrial hemp is just one step in the overall campaign to legalize the drug variety of marijuana.²⁷⁷

Industrial hemp and marijuana are closely related plants, but this close relationship belies the differences in the two plants.²⁷⁸ These differences are worth exploring. Marijuana plants grown for drug use are short and squat and must be spaced apart substantially.²⁷⁹ Industrial hemp is grown tall and reedy and planted as closely together as possible.²⁸⁰ The desired product when growing marijuana is so different from the desired product when growing industrial hemp that marijuana grown for drug use would be ruined if it were planted within miles of plants grown for industrial hemp use because of the distance pollen can be carried by the wind.²⁸¹ Distinguishing between the two varieties is not difficult and is already done in Canada and several European and Asian countries, from which the United States imports industrial hemp.²⁸² Legalizing industrial hemp may or may not be part of the greater campaign to legalize marijuana. While the status of industrial hemp could be changed through the legislative process, this does not justify the substantially false reasons the DEA uses to support the current classification regime.²⁸³ Changing the status of industrial hemp can support various interests including the environment, international trade and national defense.²⁸⁴

Industrial hemp, if legalized, can be an important crop for American farmers. Its potential to replace imported petroleum is only the beginning.²⁸⁵ It is currently used in a diverse group of industries.²⁸⁶ That use is only in its infancy and will continue to grow.²⁸⁷ Industrial hemp's ease of production and low impact on the environment are part of the equation to which industrial hemp is the answer.

²⁷⁷ *Id.*

²⁷⁸ See The Houseparent Network, *Hemp vs. Marijuana: What's the Difference*, <http://www.houseparent.net/information/Hemp.htm> (last visited Dec. 1, 2006).

²⁷⁹ Global Hemp, Inc., *Industrial Hemp Facts*, http://www.globalhemp.com/Archives/FAQ/industrial_hemp_facts.html (last visited Dec. 1, 2006).

²⁸⁰ *Id.*

²⁸¹ *Id.*

²⁸² Mark Sauer, *Hemp Industry May Blossom*, SAN DIEGO UNION-TRIB., Oct. 17, 2004, at E1.

²⁸³ Leinwand, *supra* note 164.

²⁸⁴ See *supra* Part III.C.

²⁸⁵ See *supra* Part III.C.1.

²⁸⁶ See *supra* Part III.C.2.

²⁸⁷ Kroll, *supra* note 267.

CONCLUSION

The long and seemingly repetitive history of American agricultural price supports brings an old definition of insanity to mind: "Doing the same thing over and over again and expecting different results."²⁸⁸ Farm subsidies have failed to protect the family farm and failed to bolster America's position in trade talks, while negatively impacting the environment. While this Note argues that subsidies are at least a little crazy, farmers are not. It makes economic sense to continue to grow the crops that come with a price guarantee. But this is unnecessary. Farmers can function without subsidies, and through ingenuity and entrepreneurship, flourish. Subsidies tie farmers to crops that are unprofitable and promote reckless treatment of the environment. They are holding the American farmer back from providing viable alternatives to the issues facing the country and should be ended.

²⁸⁸ This quote has been attributed to Ben Franklin, Rudyard Kipling, Albert Einstein, Yogi Berra, Dale Carnegie, Zig Ziglar and also has been called a Chinese proverb. Its actual origin is unknown. RALPH KEYES, *THE QUOTE VERIFIER* 98-99 (2006).