



2007 Farm Bill Recommendations

April 2007



Governors' Ethanol Coalition
www.ethanol-gec.org



Table of Contents

Introduction	3
New Policy Recommendations	4
Establish a Sustainable Bioenergy Crop Production Program	4
Establish a Low Carbon Renewable Fuels Loan Guarantee Program	5
Undertake Risk Management Initiative to Support Bioenergy Crop Production	7
Initiate Transportation Studies to Improve Biofuels Access to Market	7
Support Enhanced Soil Quality Modeling for Biomass Removal	7
Appropriations Recommendations	8
Provide Full Funding for the <i>Biomass Research and Development Act</i>	8
Provide Full Funding for Production Incentives for Cellulosic Biofuels	9
Increase Funding for the Renewable Energy Systems and Energy Efficiency Improvements Program	9
Increase Funding for the Conservation Security Program (CSP) and Environmental Quality Incentives Program (EQIP)	10
Increase Funding for the Biobased Products Procurement Program	10
Increase Funding for and Re-authorize the Sungrant Initiative	10



Governors' Ethanol Coalition
www.ethanol-gec.org



Introduction

In 2002, Congress enacted the nation's first energy title in the *Farm Security and Rural Investment Act*, otherwise known as the farm bill. It was hailed as landmark legislation at the time for its inclusion of those new sustainable energy provisions. Congress is now poised to consider re-authorization of the farm bill. New and expanded energy provisions — in support of the Governors' previously stated goal of meeting 25 percent of the nation's motor fuel consumption with renewable fuels by 2025 — are essential to enhanced national security, rural economic development, and environmental quality. The new farm bill must address new national priorities.

A September 2006 Farm Foundation national agriculture, food and public policy procedure survey found farmers across the country to be supportive of bioenergy provisions added to a new farm bill. They are engaged by the challenge and opportunity of helping ensure a greater percentage of farm fuel is produced, distributed and available to the motoring public. Beyond farmers, numerous other public opinion surveys have found broad support among all other demographic groups and regions for the increased use of renewable fuels to reduce our dependence on foreign oil.

The Coalition undertook a deliberative and lengthy process, as it has in the past, to develop these recommendations. This included a series of discussions with Coalition members, numerous experts and stakeholders, and analysis of federal government programs already in place. It is a comprehensive set of recommendations but not necessarily an exhaustive one. There are certainly other meritorious programs or ideas that warrant federal support not mentioned in the pages that follow. We have chosen instead to focus on several of the greatest significance to achieving our renewable fuels goals.

Each Coalition recommendation that follows is consistent with and builds upon the recommendations presented to Congressional leaders late last year and in 2005. The 2006 report, entitled *Ethanol from Biomass: How to Get to a Biofuels Future*, outlined several critical policy steps that warrant adoption, including: a dramatic



Governors' Ethanol Coalition
www.ethanol-gec.org



expansion of the Renewable Fuels Standard (RFS) consistent with the 25 percent by 2025 goal; important new funding for biomass research, development and demonstration activities; cellulosic ethanol production incentives; and key activities in support of expanded E-85 infrastructure. The previous report, *Ethanol from Biomass: America's 21st Century Transportation Fuel*, offered similar suggestions.

Both reports have one common, but critical point: the Coalition supports biofuels production from a diverse array of feedstocks, including corn, barley, wheat, sorghum, sugar, grasses, agricultural residues, and wood chips in all regions of the nation used in more efficient vehicles.

New Policy Recommendations

Establish a Sustainable Bioenergy Crop Production Program

Currently no functioning market exists for perennial bioenergy crops such as switchgrass, triticale or miscanthus. Energy markets are waiting for governmental leadership to establish value for such crops. Technological research is underway that should in the near future allow for the economic conversion of biomass feedstocks into ethanol. Now is the time for the federal government to spur development of high ton-per-acre sustainable energy crops to feed these new technologies. Without a significant market in place, farmers will not experiment with relatively unknown and untested crops at diverse locations around the country at the scale that the nation requires.

The Coalition therefore recommends that USDA establish a competitive program to pay farmers (or farm coops or communities) to plant bioenergy crops on working lands. Payments should be provided on a multi-year basis from planting to harvest. The Coalition notes that the Conservation Security Program (CSP) could be adapted to serve this purpose, or an entirely new program could be created.

- Payments would go to those projects that show the greatest promise in terms of sustainability, commercial viability (such as having agreements in place for crop purchases from biorefineries), and other relevant factors.



Governors' Ethanol Coalition
www.ethanol-gec.org



- Technical assistance should be provided. The Natural Resources Conservation Service (NRCS) conservation technical assistance (CTA) program can accomplish this goal. Their work should be expanded substantively and financially to help support sustainable bioenergy crop production, sustainable residue removal, and related “bioeconomy” activities through NRCS staff as well as private sector Technical Service Providers.
- In addition to technical assistance with conservation, the cooperative extension service has an important role to play in the dissemination of educational materials regarding agronomic practices needed for the production of alternative energy crops. Extension services should therefore expand their work in this area.
- The program could make available funds to cost-share purchases of new bioenergy harvesting machinery. Farmers will need to retrofit existing combines or purchase new ones in order to efficiently harvest two crops, grain and cellulose. New equipment designed for dedicated energy crops may be needed. Such cost sharing of equipment could also be added to an existing conservation or energy program such as the Renewable Energy Systems and Energy Efficiency Improvement Program (often known as Section 9006) as long as commensurate funding is provided to cover additional outlays.
- The Coalition recommends funding of at least \$25 million in the first year, increasing substantially over the next several years.

Establish a Low Carbon Renewable Fuels Loan Guarantee Program

Next-generation low-carbon renewable fuels production facilities have significantly higher capital costs per gallon of production capacity than traditional ethanol facilities. Private industry is laudably and actively engaged in developing a diverse set of technologies to produce low-carbon renewable fuels, including: facilities that use pretreatment and fermentation processes to convert cellulose to ethanol, facilities that use



Governors' Ethanol Coalition
www.ethanol-gec.org



thermochemical processes to produce biofuels, facilities that incorporate livestock feedlots with anaerobic digesters and ethanol production plants, and facilities that produce significant surplus electricity as well as ethanol while consuming the same amount of fuel as a traditional ethanol plant. However, all these facilities face significantly higher capital costs and capital risks that make such projects minimally attractive to private finance.

The Coalition therefore recommends that the USDA expand loan guarantees to be available to all types of low-carbon renewable fuel production facilities, including but not limited to cellulosic ethanol facilities, biodiesel facilities, and low-carbon corn ethanol plants fueled by biomass or by waste heat. The program should be competitive and performance based, offering guarantees for a greater percentage of a project's cost for projects whose carbon profile is better than current industry standard (natural gas fired corn ethanol plants).

Specifically, the Coalition notes:

- Low Carbon Renewable Fuels Loan Guarantees could be implemented within the energy title's 9006 program and/or the Business and Industry Loan Guarantee Program;
- Congress can focus greater resources in this area to complement the work already underway by the DOE;
- USDA's loan guarantees should also specifically target next generation biorefinery development in the rural and farming sector with opportunities optimized for local equity investment.;
- Loan guarantees should also be available to existing biofuels plants to allow retrofitting for use of cellulosic biofuels for processing energy, and/or for ethanol production from cellulose.
- Loan guarantees should also target processes with the potential to add the highest added value from crops able to produce multiple products in addition to fuels.
- Loan guarantee caps should be increased to no less than \$150 million per facility, and the USDA should regularly evaluate whether higher caps are necessary.



Governors' Ethanol Coalition
www.ethanol-gec.org



Undertake Risk Management Initiative to Support Bioenergy Crop Production

New perennial bioenergy crops will face many of the same risks as traditional crops, but cannot currently benefit from many of the traditional crop risk programs. Current USDA risk management programs, such as revenue insurance and commodity payments, are not geared toward perennial bioenergy crops. The Coalition recommends that Congress review the current risk management programs in light of the needs of new bioenergy crops and either amend existing risk management programs or establish new ones suitable for the new crops.

Initiate Transportation Studies to Improve Biofuels Access to Market

While the existing rail, barge and truck system has risen to the task of delivering increasing volumes of biofuels to market, there will be a need for additional and cost-effective means of transport in the near future. Three key areas are improved rail, the use of existing pipelines for ethanol transport and the creation of dedicated ethanol pipelines. The Coalition recommends the farm bill include a joint USDA/DOE/DOT study assessing all the various transportation issues with regard to ethanol expansion. The study should be completed within 12 months and include policy recommendations to efficiently expand the transportation of biofuels over the next several years.

Support Enhanced Soil Quality Modeling for Biomass Removal

Another challenge in bioenergy crop production is determining how much agricultural residue may be removed from the field without negatively affecting soil quality. Several models currently estimate soil carbon and related changes. However, sufficient data in this area is lacking, as is an effective and comprehensive planning tool(s) to assess sustainable biomass removal for energy production.

The Coalition recommends that the USDA continues to work with key stakeholders, such as the land-grant colleges to update and expand the models to include this kind of analysis. Additional funding should be provided to allow greater data collection



Governors' Ethanol Coalition
www.ethanol-gec.org



to better understand farming practices and various cropping systems to ensure that the modeling is accurate and as useful as possible to the farming community.

Appropriations Recommendations

Provide Full Funding for the *Biomass Research and Development Act*

Significant technological research and progress is well underway in developing the best path to convert biomass to biofuels at new biorefineries. The governors remain concerned, however, that the overall national goal of biofuels production could founder in the field if practical methods to collect, densify, store, and transport the massive quantities of biomass required are not simultaneously developed. This is a vital area where the USDA must lead. The Coalition recommends adequate funding be provided again in the 2007 farm bill to include a comprehensive study of these areas.

- The Coalition recommends that demonstration projects to streamline collection, transport, and storage of cellulosic crop residue feedstocks should receive greater attention.
- The Coalition recommends a comprehensive and highly detailed management plan including goals, timetables, and periodic review be prepared by USDA in coordination with DOE within the next year. The Vision and Roadmap, while very useful, are no substitute for an action plan spelling out the ways in which the work will be achieved. As the funds for biomass research, development, and deployment increase, great care and attention should be given to the expenditure of federal dollars to this endeavor.
- The Coalition recommends further research into affordable feed and forage for the livestock industry, to address issues raised by the increasing price of corn. For example, research into distillers' dried grain with solubles (DDGS) holds great potential as an ever-increasing and affordable nutrition source for livestock producers.



Governors' Ethanol Coalition
www.ethanol-gec.org



- The Coalition recommends research, development and demonstration under this and related initiatives include a diverse array of feedstocks, cellulose and grain-based, as mentioned in the introduction.
- The Coalition recommends research on new strategies to co-utilize land for production of food/feed in combination with biofuel feedstocks. Examples include, but are not limited to, feed protein recovery from grasses, and expanded use of winter cover crops.
- The Coalition recommends full funding for Section 946 of the *Energy Policy Act* (Preprocessing and Harvesting Demonstration Grants for demonstrating “cost-effective, cellulosic biomass innovations”). This initiative emphasizes opportunities for on-farm demonstrations so that agricultural producers can assess feedstock success and harvest first-hand. The Coalition recommends that Congress prioritize renewable fuels production within this program.

Provide Full Funding for Production Incentives for Cellulosic Biofuels

The *Energy Policy Act* (in Section 942) calls for per gallon payments to cellulosic ethanol producers until annual production reaches 1 billion gallons. This program has not been established or funded. The Coalition therefore recommends that Congress consider funding this activity in the 2007 farm bill. The Coalition notes that this goal is very likely achievable as part of a re-authorized Commodity Credit Corporation (CCC) Bioenergy Program.

Increase Funding for the Renewable Energy Systems and Energy Efficiency Improvements Program

Section 9006 of the energy title supports financial investments by farmers and rural businesses, including some biorefineries, in renewable energy systems and energy efficiency. While 9006 is not a cellulosic ethanol program, it may support such efforts in the future. The program is well positioned to support technology investments in ethanol plants such as combined heat and power and methane digester applications. Given this, and the



Governors' Ethanol Coalition
www.ethanol-gec.org



adaptability of the program to support clean farm-based energy, the Coalition recommends substantially increased funding for Section 9006. Also, the program should continue to maintain a robust grants component.

Increase Funding for the Conservation Security Program (CSP) and Environmental Quality Incentives Program (EQIP)

The CSP was created in the 2002 farm bill and provides tiered payments to eligible farmers for achieving conservation. EQIP provides voluntary conservation payments as well to farmers although these are directed toward existing environmental problems. The Coalition recommends increased funding for these programs since they support key conservation practices such as no-till that will enhance feedstock availability for the production of cellulosic ethanol.

Increase Funding for the Biobased Products Procurement Program

Section 9002 of the 2002 farm bill energy title provides that the federal government purchase industrial biobased products identified by USDA as long as they are reasonable in price, performance, and available. The Coalition recommends that increased funding and focus be placed on the biobased products initiative by USDA, OMB, and other agencies implementing this requirement.

Increase Funding for and Re-authorize the Sungrant Initiative

Congress authorized Sungrant as part of the 2002 farm bill's energy title. It is a national network of land-grant universities and the U.S. Department of Energy labs partnering to build a biobased economy. Sungrant is focused on regional biomass research, demonstration and related activities so that every area of the country can successfully produce biofuels and other products. The Coalition recommends increased funding and an extension of the program's current statutory authorization. The Coalition also suggests that consideration be given to opening the program to unaffiliated individuals and entities to submit work proposals.



Governors' Ethanol Coalition
www.ethanol-gec.org

Acknowledgements

The Governors' Ethanol Coalition wishes to acknowledge the support of The Energy Foundation for its assistance in the development of the recommendations. The Coalition would also like to thank the many organizations that provided suggestions and guidance in the development of the recommendations.