

# GOVERNORS' ETHANOL COALITION

## Drivers Awareness, Attitudes & Usage Of Ethanol-Blended Fuel

Summary Research Findings  
October 31, 1997

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### *Executive Summary*

During the summer of 1997 the Governors' Ethanol Coalition conducted qualitative and quantitative research throughout the Midwest to determine the awareness, attitudes and usage of drivers toward gasoline blended with ethanol.

The goal of the research was to determine why consumers make the choices they do with regard to ethanol at the pump. The answer is, simply put, most do not have enough information about ethanol, especially its environmental and engine performance attributes to make informed, positive decisions.

The research indicates most drivers are at an early stage of the product buying process: they are aware of ethanol, however they do not know its principal features of improving air quality or increasing the octane level of gasoline. Moreover, most drivers have not (or believe they have not) tried ethanol.

The most effective key message to encourage driver use of ethanol is its ability to improve air quality. A second effective message is ethanol is safe for all engines. Because most drivers are early in the product buying process, messages that will not work are (1) lower price, (2) the benefit to national energy security, or (3) benefits to the economy. These messages will not be efficient until drivers have more core product information about ethanol.

One-third of all drivers say they would pay an increase of more than 10 cents per gallon for a gasoline that improves air quality and is safe for their engines. More than one-half are willing to pay from 1 cent to 10 cents additional for this gasoline.

The principal target audience should be drivers who are more educated, with higher household income, are light users of gasoline (less than 15,000 miles annually), and who now purchase regular gasoline.

Messages on ethanol should be communicated by mechanics, and consumer, health and environmental public service organizations who have the most credibility among drivers. Oil companies, government and media are the least credible.

### *Methodology Of The Study*

In summer/fall of 1997 the Governors' Ethanol Coalition undertook driver research to determine acceptance of gasoline blended with ethanol. The research measured drivers' awareness, attitudes and usage of ethanol, consumer adoption of ethanol in selecting their gasoline and effective key messages for promoting ethanol.

The research began with focus groups in 10 Midwest region cities of the United States.<sup>1</sup> The geographic area was selected for proximity to production and distribution channels.<sup>2</sup> These focus groups assisted the research team in determining key areas of study for the quantitative telephone survey performed in August 1997.

The quantitative study involved telephoning 750 respondents in 17 states.<sup>3</sup> These telephone interviews lasted approximately 20 minutes each and permit the GEC to

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<sup>1</sup>The cities included in the focus groups research were Chicago, Dallas, Davenport, Denver, Des Moines, Indianapolis, Minneapolis, Omaha, Saint Louis and Sioux Falls.

<sup>2</sup>Ethanol had to be reasonably available to the drivers for purchase within a short geographic area. The exception to this process is Texas, where AAU determination was sought for an area dominated by petroleum.

<sup>3</sup>The geographic area studied includes all of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Minnesota, Iowa, Missouri, Arkansas, Wisconsin, Illinois, Michigan, Indiana, Ohio and parts of Colorado, Texas and Kentucky.

project the data to the entire driver population of the area studied. The quantitative study has a 4.8% margin of error at a 95% confidence level at the top line.

### *Placing Respondents Along the Ethanol Driver Adoption Scale*

The product buying process starts with awareness of ethanol, product information, trial and product loyalty. The first portion of the analysis of the quantitative study determined where in the ethanol product buying process drivers currently fall.

*Aware.* Drivers who have heard of ethanol.

*Information.* The percentage of drivers who have some knowledge of ethanol's qualities or benefits.

*Trial.* Drivers who have tried ethanol in the past six months.

*Loyalty.* Drivers who regularly use ethanol and who seek it out.

### *Aware*

In order to be considered Aware of ethanol, respondents had to mention ethanol first when asked what additives can be blended with gasoline (top-of-mind Awareness), or have to have heard of ethanol when read a list of additives (aided Awareness).

Overall, the total Awareness of ethanol in the area studied is 82% (13% top-of-mind, 69% aided). However, there is substantial variation among the states studied.

For ease in analysis, the states were grouped into regions. The North region (North Dakota, South Dakota, Minnesota, Wisconsin and Iowa) registered the highest total Awareness at 89% (19% top-of-mind, 70% aided). The East region (Illinois, Indiana, Ohio, Michigan and Kentucky) had Awareness of 84% (13% top-of-mind, 71% aided). The West region (Colorado, Nebraska, Kansas and Missouri) reported total Awareness of 81% (15% top-of-mind, 66% aided). The South region (Texas, Oklahoma and Arkansas) had 68% total Awareness (4% top-of-mind, 64% aided).

### *Information*

Drivers are considered in the Information stage of the ethanol adoption scale if they indicated "Ethanol makes engines run better" or agreed "Ethanol increases the octane level of gasoline". Using the same regional groupings as above, the percentages of respondents in the Information stage are:

North	26%
East	23%
West	28%
South	28%

### *Trial*

Drivers are at the Trial stage of ethanol adoption if they indicated they have used ethanol in the past six months (Question 10). The percentages of respondents in the Trial stage are:

North	32%
East	28%
West	25%
South	9%

### *Loyalty*

Finally, drivers who are at the Loyalty stage of ethanol adoption, must have answered that they "seek out" ethanol (a "4" or a "5" on a 1 to 5 scale) (Question 8), or have answered that they regularly use ethanol (Question 11). The Loyalists responses are:

North	11%
East	5%
West	8%
South	2%

### *Analysis of the Ethanol Adoption Scale*

Looking at the percentages for each region at each point in the ethanol adoption scale, the most striking feature is the substantial drop-off from Awareness to Information. The data indicates drivers are "blocked" or are not moving through at the Awareness stage to the Information stage.

Ideally, consumers flow through a consumer adoption process with little drop-off between stages. At the current time, while drivers may know the term "ethanol", very few know much about it. Drivers cannot move to Trial or Loyalty unless and until they have more information about ethanol.

There is a degree of "forced trial" in the North which may account for the slight increase in the North between Information and Trial.

Clearly, however, the drop from Awareness to Information is still of concern in all regions and forcing trial does not automatically increase information about ethanol. This ultimately may impact the ability of states to require use of ethanol since the reasons for its required use are not understood.

### *Demographics Of Those Blocked At Awareness*

When looking at education and income it becomes clear those with more education and income have less--or accept less--information about ethanol. In every region but the North, college graduates and those pursuing post graduate education have less information about ethanol than those with less education. Income is also an indicator in the South and West, where those with higher incomes also have less information about ethanol.

Owners of older cars (pre-1991) in every region of the country except the North are blocked, as are those who drive less than 15,000 miles per year. Those who choose regular gasoline at the pump are less likely to have ethanol information.

To summarize, the demographics of the drivers blocked at Awareness are:

- More likely to have a higher income
- More likely to have more education
- Generally drive fewer miles
- More often use regular gasoline

### *What Key Messages Will Move Drivers Through The Adoption Process?*

#### Environment

Respondents in every region consider it important to reduce the amount their vehicles pollute the air. However, it is in the West and South where the message has particular resonance among those who already have moved to the Information stage.

Likewise, all regions indicate air quality is not adequately protected by current laws, but it is in the North, West and South where the message is important to those who have moved to the Information stage.

#### Price

Approximately three of four drivers in every region except the North, indicated the price of gasoline is important when they decide which gasoline to purchase. In the North, somewhat more than one half of drivers indicate price is important.

However, price does not appear to be a blocking factor when moving from Awareness to Information. There is some blocking in the East Region between Awareness and Information, but it does not appear to be material. The message is

that price is not an issue as the GEC formulates a message to move drivers from Awareness to Information.

A second question on price (relating to agreement that price determines the grade of gasoline purchased) supports the earlier finding that regular gasoline users are blocked moving from Awareness to Information. In the current question, there is significant blocking occurring between Awareness to Information in the West and the East regions. A key message to this group is that ethanol will increase octane in regular grade gasoline without requiring the purchase of higher price mid-grade or premium gasoline.

#### Energy Security

Respondents in every region indicated they agree this country depends too much on foreign oil. However, there is little blocking occurring between Awareness and Trial on this question. In other words, drivers will not respond favorably to ethanol based on a key message of energy independence.

#### Economy

There is substantial agreement throughout the four regions that increased use of renewable fuels is good for the nation's economy. It appears to be important to drivers who have moved from Awareness to Information, in other words in a later part of the adoption cycle.

Additionally, about one half of all respondents agree the government should subsidize the development of domestically-grown fuels. Drivers in the East and West regions who moved from Awareness to Information are most responsive to this message.

### Engine Performance

Drivers in all regions agree in large numbers that improving their vehicles' performance is important. Substantial numbers of drivers in every region who moved from Awareness to Information agree vehicle performance is important. This is a key message which will move drivers to Information.

Even more significant is the number of drivers who have moved from Awareness to Information and who agree ethanol increases octane in gasoline. The performance enhancing features of ethanol are important and should be part of any key messages the GEC ethanol program produces.

### *How Much Will Drivers Pay For Ethanol?*

Respondents were read a description of a new gasoline with the same features as ethanol, however ethanol was not identified. They were asked how much more per gallon they would be willing to pay if they were convinced the attributes were real. More than half indicated they would pay from 1 cent to 10 cents per gallon more with one-third saying they would pay more than 10 cents per gallon. These percentages varied only slightly among regions and different stages of the adoption process.

### *Who Should Communicate The Ethanol Message?*

Organizations considered most trustworthy when providing information about gasoline are groups concerned with public health, consumer and environmental advocacy groups, mechanics and agricultural organizations.

The least trustworthy are oil companies, government and media.



*Summary*

To move drivers to use ethanol (specifically from the Awareness to the Information stage of the ethanol adoption process) the Governors' Ethanol Coalition should target: the (1) more educated, (2) higher income, (3) lighter users of gasoline (less than 15,000 miles per year) and (4) drivers who now purchase regular gasoline.

The two messages that will be recognized, understood and believed by drivers (especially from the Aware group and move them to the Informed) are environmental (clean the air) and engine performance (safe for all engines).

