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Study: U.S. could put a big dent in corn prices by relaxing ethanol rules

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By Brad Plumer August 21, 2012 

The worst U.S. drought in half a century has hampered the country's corn production and caused plenty of worry about the rising cost of food worldwide. But the spike also raises a policy question. Should the United States now [suspend its rules](#) that divert a hefty portion of the U.S. corn crop—40 percent, by some counts—into ethanol fuel for cars and trucks?

One top U.N. food official, José (Seth Perlman/AP)

Graziano da Silva, [has already called for](#) an "immediate, temporary suspension" of the U.S. ethanol mandate in

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order to ease the pressure on world food prices. But how much would this actually help? Here's one possible answer. A [new paper](#) (pdf) out from three agricultural economists at Purdue University finds that even a partial relaxation of the mandate could reduce corn prices by up to 20 percent next year. (It's probably too late to seriously affect prices this year.) But, as always, there are complications involved that make these estimates uncertain.

Currently, the EPA's [Renewable Fuel Standard](#) requires refiners to blend a certain amount of ethanol in with their gasoline. In 2013, this will require about 13.8 billion gallons of ethanol. Since corn ethanol is the most viable form of ethanol in the United States at the moment, this creates a hefty—and fairly inflexible—market for corn. And that causes corn prices to rise higher than they otherwise would.

What would happen if the EPA relaxed this mandate? As the Purdue authors note, a lot depends on how quickly refiners and blenders could switch away from ethanol. That's not as technically easy as it sounds—these refiners have already made preparations for blending ethanol. What's more, under the EPA program, the producers of ethanol can carry over credits from year to year, giving them some flexibility to deal with shortages. That complicates matters further.

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So the Purdue authors modeled a couple of different situations to determine how the price of corn might be affected in 2013. Roger Pielke Jr. [has created a very handy graph](#) that shows different options under a "strong drought" scenario:

Let's break this chart down: In the first option, the EPA doesn't alter its ethanol program at all. Corn prices remain elevated next year — staying around \$8.57 per bushel. Under the second option, the EPA doesn't alter its program at all, but ethanol producers use as many of their existing credits (RINS) as possible to deal with the shortage. Corn prices drop about 7 percent. In the third case, the EPA allows a little more flexibility in its rules, say, by partially relaxing the mandate or by allowing U.S. refiners to use imported sugarcane ethanol. Prices drop by about 13 percent.

Under the fourth option there, the EPA allows a fairly big relaxation of the ethanol rule next year. (A waiver this year is unlikely.) Refiners are required to use 25 percent less ethanol. And ethanol producers can carry over their credits from previous years. In that case, corn prices could drop more than 20 percent, to \$6.56 per bushel. That's about where corn prices would have been if we only had a "weak drought" this year. In other words, by relaxing the ethanol rule, the EPA could essentially turn a "strong drought" into a "weak drought" as far as prices

are concerned.

Still, the Purdue authors note that there's no simple solution here. The drought has already hurt the corn crop this year. That corn isn't coming back. At best, by relaxing the ethanol rule, the EPA could redistribute the pain a bit:

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In considering a waiver, EPA cannot change the loss, but can only redistribute it among the affected parties—ethanol producers, livestock producers, corn growers, and ultimately domestic and foreign consumers. To the extent that the refining and blending industry has flexibility, issuing a waiver helps livestock producers and livestock product consumers, and it hurts ethanol producers and crop growers.

So far, the Obama administration has shown no indication that it will relax the ethanol mandate, although the EPA just announced it would [take public comments](#) on a waiver proposal. In the meantime, the Department of Agriculture has tried to assist livestock producers [by buying up millions of dollars](#) worth of pork, chicken, and beef. That might help meat producers. But it doesn't change the fact that the combination of a drought and tight ethanol rules will hike corn and other food

prices—particularly for developing countries overseas.

* *Updated to note that the EPA is preparing to open a [30-day comment period](#) on requests to waive the ethanol mandate.*