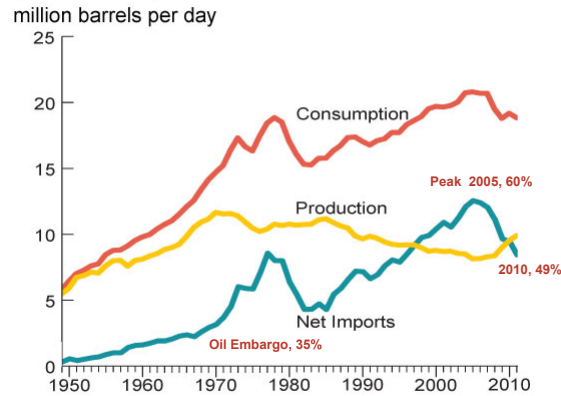


Dependence on imported oil is declining from 2005 peak

U.S. Petroleum and Other Liquids, Consumption, Production, and Imports (1949-2011)



Source: U.S. Energy Information Administration, *Monthly Energy Review*, Table 3.1 (April 2012), preliminary data, and *Annual Energy Review*, Table 5.1a (October 2011).

Alternative vehicles: They use less petroleum, but producing their fuel guzzles more water.

Gallons of Water Depleted to Travel 100 Miles

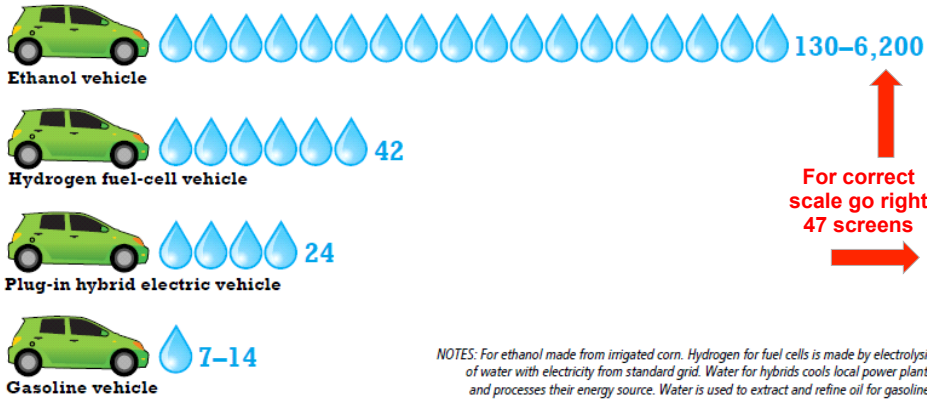


NOTES: For ethanol made from irrigated corn. Hydrogen for fuel cells is made by electrolysis of water with electricity from standard grid. Water for hybrids cools local power plants and processes their energy source. Water is used to extract and refine oil for gasoline.

Source: Webber, 2008.

Alternative vehicles: They use less petroleum, but producing their fuel guzzles more water.

Gallons of Water Depleted to Travel 100 Miles



↑
For correct scale go right 47 screens
→

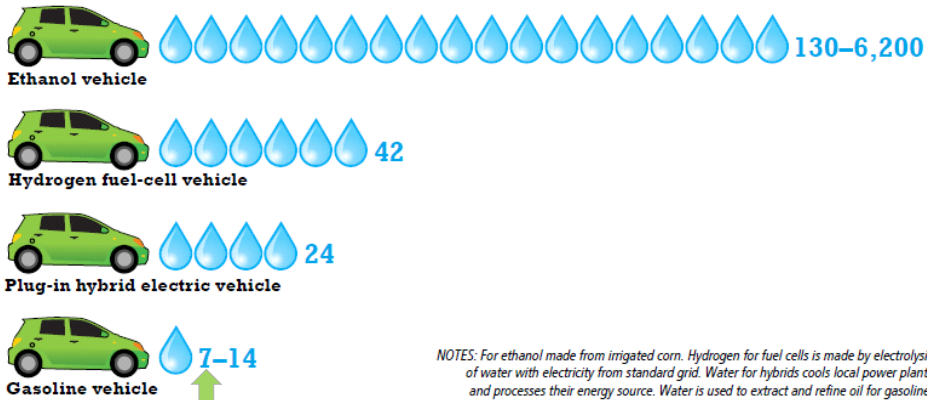
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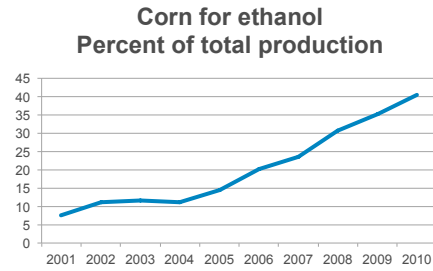
↑
My Honda Civic Hybrid

NOTES: For ethanol made from irrigated corn. Hydrogen for fuel cells is made by electrolysis of water with electricity from standard grid. Water for hybrids cools local power plants and processes their energy source. Water is used to extract and refine oil for gasoline.

Source: Webber, 2008.



A lot of corn is being used for ethanol

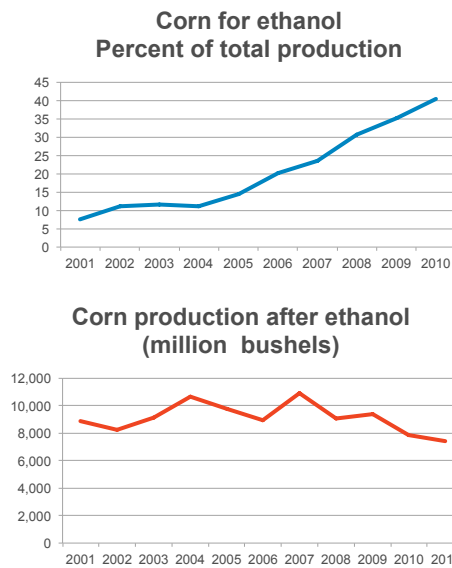


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Source: Faeth, 2012

5

A lot of corn is being used for ethanol



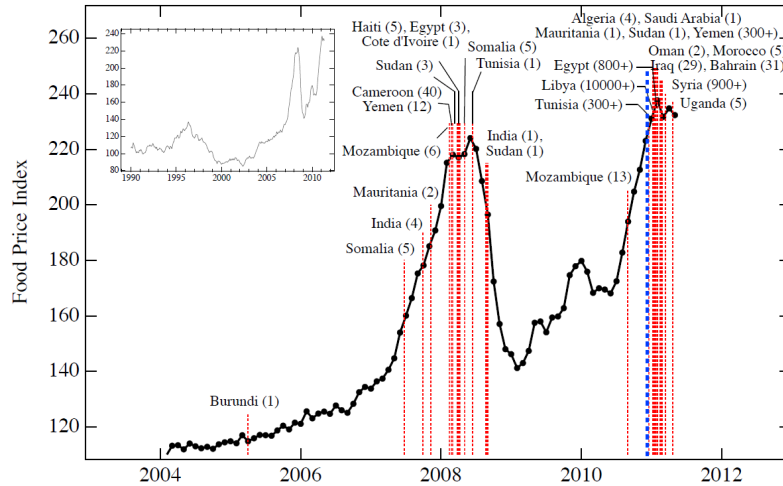
Total corn production is up 28% since 2001 but, corn production after ethanol use is down by 8.4%

CNA

Source: Faeth, 2012

6

36% of food price increases due to biofuel production



Sources: Lagi, et al. 2011; Babcock and Fabiosa, 2011.

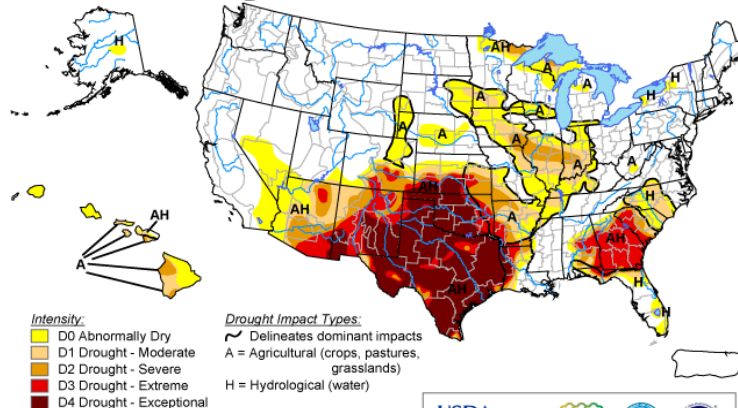
CNA

7

Drought limited power production in Texas

U.S. Drought Monitor September 13, 2011

Valid 8 a.m. EDT



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



Released Thursday, September 15, 2011

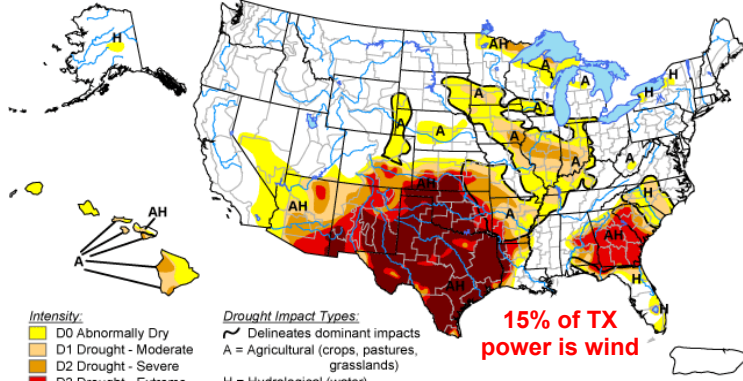
Author: Mark Svoboda, National Drought Mitigation Center

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8

Drought limited power production in Texas

U.S. Drought Monitor September 13, 2011 Valid 8 a.m. EDT



Intensity:
D0 Abnormally Dry
D1 Drought - Moderate
D2 Drought - Severe
D3 Drought - Extreme
D4 Drought - Exceptional

Drought Impact Types:
~ Delineates dominant impacts
A = Agricultural (crops, pastures, grasslands)
H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



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Author: Mark Svoboda, National Drought Mitigation Center

