China’s New Nationwide E10 Ethanol Mandate and Its Global Implications

Minghao Li  
*Iowa State University, minghao@iastate.edu*

Wendong Zhang  
*Iowa State University, wdzhang@iastate.edu*

Dermot J. Hayes  
*Iowa State University, dhayes@iastate.edu*

Riley Arthur  
*Iowa State University, rarthur@iastate.edu*

Tantao Yang  
*Chinese Academy of Agricultural Sciences, yangyantao@caas.cn*

See next page for additional authors

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Authors
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Minghao Li, Wendong Zhang, Dermot Hayes, Riley Arthur, Yantao Yang, and Xiudong Wang
minghao@iastate.edu; wdzhang@iastate.edu; dhayes@iastate.edu; rarthur@iastate.edu; yangyantao@caas.cn; wangxiudong@caas.cn

In September 2017, the Chinese government announced a new nationwide ethanol mandate (NEA 2017) that expands the mandatory use of E10 fuel (gasoline containing 10 percent ethanol) from 11 trial provinces to the entire country by 2020. This measure would require ethanol consumption in China, the largest motor vehicle market in the world, to at least quadruple within the next three years. For US producers, this recent development fuels interest in whether China is going to import ethanol and/or corn (the main feedstock for ethanol production in China) to meet the mandate.

Background
Beyond environmental benefits, a key motivation for the E10 mandate is to reduce China’s large corn stockpiles, which peaked in 2015/2016 at over four billion bushels (Figure 1, sources from China estimate the stockpile to be much larger). This is about half of the world ending stocks and enough for China’s domestic consumption for half a year (Wu and Zhang 2016). The stockpile is the result of a corn price support policy that was paying Chinese corn producers more than twice the international price level until 2016 (Wu and Zhang 2016). Burdened by high storage cost, food safety risks, and potential waste, China recently adopted multiple measures to cut supply and increase demand. These measures include replacing the support price with a producer support based on planted area and financial assistance for corn processors. These measures have been effective—since 2015, China’s corn consumption has caught up with production, the price for corn dropped to the lowest point in six years, and ending stock has been decreasing (USDA 2017b). The E10 mandate will further increase the demand for corn and speed up reduction of the stockpile.

Current Situation of China’s Ethanol Industry
In 2016, China produced over one billion gallons of ethanol (Figure 2), making it the fourth-largest ethanol producing country/region in the world,