FACT SHEET: Ethanol Biorefineries

¹National Corn Growers Association, "www.ethanolfacts.com", 2007. <u>www.ethanolfacts.com/ETHL2007/ebasics.html</u>

² Renewable Fuels Association, "Ethanol Facts: Agriculture." <u>www.ethanolrfa.org/resource/facts/agriculture/</u>

³ National Sorghum Producers. "Sorghum for Biofuels," www.sorghumgrowers.com/biofuels.html

⁴ Department of Energy. US Product Supplied for Crude Oil and Petroleum Products. tonto.eia.doe.gov/dnav/pet/pet_cons_psup_dc_nus_mbbl_a.htm (using 2006 annual data).

⁵ Renewable Fuels Association, "Ethanol Industry Overview." www.ethanolrfa.org/industry/statistics/.

⁶ Energy Policy Act of 2005. Section 1501 mandates 7.5 billion gallons of ethanol use by 2012. <u>frwebgate.access.gpo.gov/cgi-</u> bin/getdoc.cgi?dbname=109 cong bills&docid=f:h6enr.txt.pdf

⁷ Energy Independence and Security Act, passed into law under the Bush administration on December 19, 2007. New biofuel standards listed in Title II Section 203 of HR6. Information may be accessed at: www.GovTrack.us. H.R. 6 – 110th Congress (2007): Energy Independence and Security Act of 2007, GovTrack.us (database of federal legislation). www.govtrack.us/congress/bill.xpd?tab=summary&bill=h110-6

⁸ Currently, to produce 7 billion gallons of ethanol requires 34 million acres of corn. At 17 billion gallons, corn acreage will equal 17 / 7 * 34 million acres (= 82.57 million)

⁹ National Corn Growers Association. "Sustainability and Production" www.ncga.com/growersresources/sharefacts/Sustainability.asp

¹⁰ Seth Slabaugh, "Ethanol Plant's Noise Annoys Neighbors," The Star Press (Muncie, IN), Sept 11, 2005. Formerly at www.thestarpress.com/articles/0/046436-2730-004.html

¹¹ Robert Bryce, "Corn Dog," *Slate Magazine*, July 19, 2005. <u>slate.msn.com/id/2122961/</u>

¹² Renewable Fuels Association, "Plant Locations," <u>www.ethanolrfa.org/industry/locations/</u>

¹³ "A Carbon Cloud Hangs Over Green Fuel," Christian Science Monitor, March 23, 2006. www.csmonitor.com/2006/0323/p01s01-sten.html (also posted at www.alternet.org/envirohealth/33969/); also cited in "Warts and Ethanol – A new reliance on coal could sap green cred from the ethanol industry," Grist, May 25, 2006. www.grist.org/news/muck/2006/05/26/unethacoal/ Both articles cite McIlvaine Company

(<u>www.mcilvainecompany.com</u>). The article cites 190 proposals, but we've seen so many newer proposals that the 200-300 is an estimate of ours. Ted Williams, "Drunk on Ethanol," Audubon, Aug, 2004. magazine.audubon.org/incite/incite0408.html

¹⁵ USDA Economic Research Service, "Adoption of Genetically Engineered Crops in the U.S." www.ers.usda.gov/Data/BiotechCrops/ExtentofAdoptionTable1.htm

¹⁶ Council for Biotechnology Information, "Green Ethanol Provides Environmental Advantages." <u>www.whybiotech.com/index.asp?id=5174</u>

¹⁷ Dr. Charles M. Benbrook, "Factors Shaping Trends in Corn Herbicide Use," Ag BioTech InfoNet Technical Paper Number 5, Northwest Science and Environmental Policy Center, July 23, 2001. www.biotech-info.net/corn_reduct.html Study shows slight increase in Roundup herbicide on Roundup Ready corn.

¹⁸ Round up has been found to be detrimental to many amphibians. Rick A. Relyea, "The Impact Of Insecticides And Herbicides On The Biodiversity And Productivity Of Aquatic Communities," Ecological Applications: Vol. 15, No. 2 (April 2005), pp. 618-627.

www.esajournals.org/esaonline/?request=get-abstract&issn=1051-0761&volume=015&issue=02&page=0618 See also "Dr. Relyea Responds to Monsanto's Concerns About His Research on the Toxicity of Herbicide Roundup," Relyea Lab, University of Pittsburgh. www.pitt.edu/~relyea/Roundup.html

¹⁹ "Crops Under Question – a briefing book on genetically-engineered Bt crops," Genetically Engineered Food Alert, Aug 2001.

www.gefoodalert.org/library/admin/uploadedfiles/Crops Under Question A Briefing Book on Geneti.pdf²⁰ Ag BioTech InfoNet, "Insect Resistance." www.biotech-info.net/bt-transgenics.html#corn

²¹ Ted Williams, "Drunk on Ethanol." Audubon, Aug. 2004. <u>magazine.audubon.org/incite/incite0408.html</u>

²² Ibid.

²³ Stan Cox, "Hunger for Natural Gas," AlterNet, Oct 12, 2005. <u>www.alternet.org/story/26703/</u>

²⁴ U.S. Geological Survey, Mineral Commodity Summaries, Jan 2008. Nitrogen: minerals.usgs.gov/minerals/pubs/commodity/nitrogen/mcs-2008nitro.pdf

²⁵ The Fertilizer Institute. "Supply & Demand, Energy Drive Global Fertilizer Prices" www.tfi.org/publications/pricespaper.pdf

²⁶ United States Geological Survey. "Nitrogen Statistics and Information" <u>minerals.usgs.gov/minerals/pubs/commodity/nitrogen/</u>

²⁷ Supra note 25.

²⁸ U.S. Geological Survey, "Phosphate Rock Statistics and Information" minerals.usgs.gov/minerals/pubs/commodity/phosphate_rock/ ²⁹ U.S. Geological Survey, Mineral Commodity Summaries, Jan 2008. Phosphate:

minerals.usgs.gov/minerals/pubs/commodity/phosphate_rock/mcs-2008-phosp.pdf

³⁰ U.S. Geological Survey, Mineral Commodity Summaries, Jan 2008. Potash: minerals.usgs.gov/minerals/pubs/commodity/potash/mcs-2008- $\frac{\text{potas.pdf}}{^{31}}$ Supra note 25.

³² Robert McIlvaine, president of McIlvaine Company, as quoted in articles cited above in footnote #13.

³³ Continuous Emissions Monitors <u>www.ejnet.org/toxics/cems/</u>

³⁴ Multiple articles gathered from Ethanol News Library. Accessible at <u>www.ethanol-news.newslib.com</u>

³⁵ Mary Losure, "Gopher State Ethanol Problems Trigger National Crackdown," Minnesota Public Radio News, Sept 23, 2002. news.minnesota.publicradio.org/features/200209/23 losurem ethanol/ ³⁶ Institute for Agriculture and Trade Policy. "Water Use by Ethanol Plants: Potential Challenges," Published Oct 2006.

http://www.iatp.org/iatp/publications.cfm?accountID=258&refID=89449 Also see, "Water Supply Can't Meet Thirst For New Industry," Minneapolis Star Tribune, Dec 26, 2005. Formerly at www.startribune.com/stories/484/5801665.html

³⁷ Ted Williams, "Drunk on Ethanol," Audubon, Aug 2004. <u>magazine.audubon.org/incite/incite0408.html</u>

³⁸ Perry Beeman, "Ethanol Plants Among Iowa's Polluters," *The Des Moines Register*, Sept 11, 2005.

www.desmoinesregister.com/apps/pbcs.dll/article?AID=/20050911/NEWS03/509110345/1001/NEWS ³⁹ (ethanol = 75 700 Phy/college at the second seco

(ethanol = 75,700 Btu/gallon; gasoline = 125,000 Btu/gallon). "Bioenergy Conversion Factors," Bioenergy Information Network, Oak Ridge National Laboratory. bioenergy.ornl.gov/papers/misc/energy_conv.html

⁴⁰ Ted Williams, "Drunk on Ethanol," Audubon, Aug 2004. magazine.audubon.org/incite/incite0408.html

 ⁴¹ Timothy C. Barmann. "Making Tracks for Clean Air," As quoted in this August 2007 article: <u>www.projo.com/business/content/bz_motiva_ethanol_railyard22_08-22-07_BE6QTFD.25d7d40.html</u>
⁴² Robert Bryce, "Corn Dog," *Slate Magazine*, July 19, 2005. <u>slate.msn.com/id/2122961/</u>

⁴³ The Associated Press, "Ethanol Fuels Fire Concerns." The New York Times, 26 Feb. 2008.

⁴⁴ Cambrians for Thoughtful Development, "Ethanol Plant Incidents." <u>homepage.mac.com/oscura/ctd/incidents.html</u>

⁴⁵ "We are on fire!' 'Mayday, mayday, mayday! This is the Bow Mariner, Bow Mariner!'' *Richmond Times-Dispatch*, April 18, 2004. This and several related news articles can be found here:

<u>www.timesdispatch.com/servlet/Satellite?pagename=RTD/Page/RTD_SectionFront&c=Page&cid=1031774925423</u> The U.S. Coast Guard's accident report is here: <u>www.nrc.uscg.mil/reports_cgi/rwcgi60.exe?foia_bmp+inc_seq=714652</u>

⁴⁶ Dennis B. Roddy. "Massive Rail Cleanup in New Brighton," Sunday, October 22, 2006. Pittsburgh Post-Gazette. Available in pdf homepage.mac.com/oscura/ctd/docs/102206brightonethanol.pdf

⁴⁷ "Sad Storrie: Spill From Derailment Has Property Owners Battling With Railroad," Chico Enterprise-Record, Oct 28, 2007.
<u>www.chicoer.com/news/ci_7303015</u>
⁴⁸ Kansas State Researchers Findings on E. Coli. Released Dec 4, 2007. <u>www.eurekalert.org/pub_releases/2007-12/ksu-krf120307.php</u>

⁴⁵ Kansas State Researchers Findings on E. Coli. Released Dec 4, 2007. <u>www.eurekalert.org/pub_releases/2007-12/ksu-krf120307.php</u>
⁴⁹ Doug Koplow, "Biofuel at what cost? – Government support for ethanol and biodiesel in the United States: 2007 Update," Earth Track, Inc., Oct 2007, p1. <u>www.earthtrack.net/earthtrack/library/BiofuelsUSupdate2007.pdf</u>

⁵⁰ Plug-in hybrid and electric car advocates argue that even if wind power certificates were purchased to ensure that electricity use wouldn't be supporting our largely coal, nuclear and gas-powered electric grid, it would still cost under \$1/gallon gasoline equivalent. See the following websites for more info: <u>www.pluginpartners.org</u>, <u>wwww.pluginpartners.org</u>, <u>wwwww.pluginpartners.org</u>, <u>www.pluginp</u>

⁵¹ Dr. Tad W. Patzek, "The United States of America Meets the Planet Earth," University of California Berkeley, Aug 21, 2005. www.berkeley.edu/news/media/releases/2005/08/NPC_briefing_Patzek.pdf