AGRICULTURE: Corn growers see wider use beyond food, ethanol

Applications of corn are soaring, beyond ethanol and foodstuffs, to include such uses as plastic bag and packaging material, antifreeze and utensils.

Corn's starchiness has made it a good substitute for petroleum in terms of fuel, as it breaks down into sugar, which can be fermented. But researchers are increasingly finding other ways that corn can replace petroleum.

DuPont has been using corn since November to manufacture propanediol to use in its stain-resistant carpet called Sorona. It held the proprietary formula for the technology for 40 years, but making the chemical from petroleum proved prohibitively expensive.

Pennsylvania State University researchers are looking into using corn glucose to generate electricity, for possible inclusion in hydrogen fuel cells. Florida-based BiocGroupUSA is making biodegradable, compostable plastic bags made from corn, and Wal-Mart is reportedly saving 800,000 barrels of oil per year and 11 million pounds of CO2 by using corn-based containers to sell produce.

Other pending applications include polishers, cosmetics, detergents and root-only hair dyes.

"Corn holds a lot of answers," said Ken McCauley, president of the National Corn Growers Association and a partner in a processing plant that makes corn snack grits for Fritos. "We're just getting started, really." To deal with land-use concerns, McCauley recommended no-till farming.

(Sandy Bauers, Philadelphia Inquirer, Jan. 15). -- DK