



(Photo: Bethany Baratta/Iowa Soybean Association)

Farmers celebrate soy in a ‘to the moon’ milestone

March 30, 2023 | [Bethany Baratta](#)



There’s a connection between mussels and the moon. And this one hinges on soy.

It started when Kaichang Li, an Oregon State University researcher was looking for an alternative to formaldehyde in adhesives. Studying mussels, he learned they release a protein to allow them to withstand waves as they cling to rocks on the seashore. That led him to create an adhesive from soy protein.

With support from the soybean checkoff and the U.S. Department of Agriculture, Li began working with North Carolina-based Columbia Forest Products to adapt his new

soybean-based adhesive to hardwood plywood manufacturing. By 2006, the Columbia Forest Products had converted all 11 of its plants away from formaldehyde-based adhesives — emissions linked to cancer — to this new, soy-based glue called PureBond®.

“Plywood is under our feet, over our heads, in our cabinets and in our walls. To know that soy is being used as an alternative to formaldehyde as a cleaner, healthier product in homes is a big deal,” says Robert Petter, a soybean farmer in Arkansas and director on the United Soybean Board (USB).



Petter watches as the EPA award-winning PureBond® is used to adhere sheets of hardwood veneer together during a visit to the Columbia Forest Products plant in Old Fort, North Carolina.

Established in 1957, Columbia Forest Products is North America’s leading manufacturer of hardwood plywood and hardwood veneer panels. An employee-

owned company, Columbia Forest Products operates facilities throughout the United States and Canada.

Petter and others joined employees at the mill to celebrate Columbia Forest Products' use of PureBond® to produce 150 million plywood panels. Laid next to each other, this distance is equivalent to a trip from the Earth to the moon.

“As farmers we plant the seed and harvest the soy, and sometimes we don't fully appreciate the tremendous impact of the goods we produce and the finished products that are developed and consumed daily,” says Susan Watkins, a USB leader who farms with her husband in Virginia on land granted by the King of England.

On average, 29,000 pounds of soy flour derived from 794 bushels of soybeans are used per day at the Old Fort mill. Columbia Forest Products sources the soy flour used to create PureBond® from Benson Hill and CHS.



The PureBond® products are attractive to fabricators and customers, notes Todd Vogelsinger, Columbia Forest Products' director of marketing.

“PureBond® formaldehyde-free technology continues to be a market differentiator for woodshops that cater to a health-conscious clientele,” Vogelsinger says. “Not to mention the Do-It-Yourselfers.”

Emblazoned with “soy-based adhesive technology” on its Home Depot-orange packaging, Watkins and others watch as employees load PureBond® plywood onto a flatbed semi-trailer destined for a Home Depot retail location.

“From feed to fuel and of course soy flour, soybeans are not just feeding the world, but through the checkoff and partners such as Columbia Forest Products, other uses are being developed, steadily increasing the demand potential for U.S. soy.”

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