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PFOA CONTROVERSY SPAWNS NATURAL COATING FOR PAPER FOOD PACKAGING MADE FROM CORN PROTEIN

The ongoing debate over the safety of perfluorinated chemicals as coatings for paper food packaging has spurred a development company and the **University of Maine** to create a corn-based alternative nearing commercialization.

Cerealus Holdings, Waterville, ME, has collaborated since 2004 with the university to come up with a natural-based alternative to the synthetic coating used in paper snack-food packaging as a grease and oil barrier. The result is a new coating, called *Holdout*, made from the zein protein extracted from corn as animal feed. A pilot plant to produce the coatings material is expected to start production later this year, said Cerealus founder/ceo Tony Jabar.



A natural paper coating from Cerealus could replace a controversial synthetic chemical to coat a variety of food packages.

Perfluoroactanoic acid (PFOA) has been under attack during this decade, with the **U.S. Environmental Protection Agency** claiming 99 percent of Americans have the chemical in their bloodstreams. While health hazards have not been proven, some scientific studies and environmental groups claim the chemical can affect unborn children and cause development problems.

Cerealus and the University of Maine were able to separate the corn protein and extract it for use as a coating, Jabar said. The key to the formulation is the ability to make the protein water-soluble so it will work as a coating for such items as microwave popcorn bags, pizza boxes, snack food wrappers, and deli papers.

Packaging Strategies' Perspective: *The fluorocarbon coatings market in the United States is not huge, about 40mn pounds annually, according to Jabar. But a secondary market for the new materials could be in polyethylene-based coatings for paper bags, providing a more recyclable source and a larger market.* **[PS]**

BEMIS SNACKS ON PIONEERING SEALANT FILM THAT ELIMINATES A LAYER OF MATERIAL



The maturation and minimalization of metallization in barrier applications continues, led by the launch of a pioneering new sealant film from **Bemis** that eliminates an entire layer of material.

Bemis's Milprint Division, Oshkosh, WI, is launching a two-layer film that use aluminum laminations as a single layer to replace the need for both barrier and sealant layers. According to Bemis marketing communications manager Kimberly Kohlbeck, the new **BMET** films are the first on the market to offer a two-ply structure instead of the standard three-layer sealant films.

By eliminating a film layer, the company uses about

polypropylene (PP), or EVOH.

The two-ply films are targeted for such applications as snack and pet foods, where metallization and barrier are key elements, and can deliver hermetic seals that are the barrier equivalent of oriented PET (OPET) or metallized oriented PP.

Snack food bags made of a new Bemis material use a 2-ply lamination with the same metallized performance as a 3-ply structure.



Packaging Strategies' Perspective: