

WHEAT USES

Alternative & Industrial Uses

The properties that make wheat suitable in food products, gluten (protein) and starch also make wheat functional in nonfood and industrial applications. Wheat gluten is unique due to its ability to be elastic, bind water and form films that can be stabilized with heat. These properties render wheat gluten useful for the preparations of adhesives, coatings, polymers and resins.

Wheat is being utilized in these other products:

Straw Particle Board (wood) — One acre of wheat stubble produces approximately two bales of wheat straw. 64 pounds of wheat straw produce one sheet of strawboard 4'x 8'- 1/2" thick. Primary uses of strawboard include "ready to assemble" furniture, flooring, foundation for lamination and kitchen cabinets.

Paper — Wheat starch makes paper stronger. Five billion pounds of starch are used in the manufacturing of paper each year in the United States.

Adhesives — Wheat starch is used as an adhesive on postage stamps and is used to hold the bottom of paper grocery sacks together.

Cosmetics and Pharmaceutical products — Wheat starch could be substituted in significant volumes for current materials if proven commercially viable.

Due to advances in technology, using these wheat products is now as efficient as using other commodities, such as corn or soybeans. Wheat appears to be attractive for new uses because it is so easily produced, and the necessary production and distribution infrastructures are already in place.

The production and commercialization of new products made with renewable agricultural commodities present new opportunities for the global environment and for America, creating new markets for American produced goods, new jobs and economic growth. The potential new value for the wheat industry alone has been estimated at \$500 million.

You wouldn't think...

*Polymers
Packing peanuts
Plastic Bags
Plastic film
Packaging, foams and insulation
Reinforcing agents in rubber products
Charcoal
Cups
Fine paper products
Fuels
Golf Tees
Insulation
Medical swabs
Roofing and other building materials
Skeet pigeons
Textile finishing agents
Wood substitute
Hair conditioners
Moisturizers
Liquid laundry detergents
Water-soluble inks
Starch replacing fat in desserts
Milk replacers
Egg white substitutes*

U.S. TOTAL USE

50% Exports
36% Food
10% Livestock feed
4% Seed

Sources:

National Association of Wheat Growers Foundation
Wheat Utilization Committee (Washington DC)
CenKan Enterprises (Strawboard) (620-665-7000)
Kansas Wheat Commission (785-539-0255)
Kansas State University Department of Grain Science (785-532-6161)