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Clean air, clean water, clean energy.

Sustainability is key to preserving our environment and our vital resources. As a land-grant university, it is imperative to continually look for ways to preserve our air and water quality and to develop sustainable energy. Many of Kansas State University’s most talented scientists focus their research efforts in these areas.

The university’s location in the Flint Hills and the Great Plains is an asset to study grasslands and wind energy — research that wouldn’t be possible anywhere else.

Grasslands cover about 40 percent of the Earth’s land surface, and how these lands are managed affects water safety and prevention of soil erosion. Conserving and sustaining this critical resource is the basis for a great deal of research at Kansas State University, and some is covered in this issue.

The 8,600-acre Konza Prairie Biological Station enables world-class grassland research that attracts international researchers and plays a key role in high-profile national ecological programs. Konza is jointly owned by The Nature Conservancy and Kansas State University.

Kansas State researchers developed a Web-based application to monitor landscape health. They currently use it to monitor land on nearby Fort Riley, home of the Army’s 1st Infantry Division, to prevent water pollution and soil erosion and to improve the natural flow of water. In the future, this system may become a model for monitoring other military installations and Department of Defense-owned land.

Water has been identified as one of the most critical resources for the future. Kansas State University is home to the Kansas Water Resources Institute and the newly formed Urban Water Institute, which is located at our Olathe campus in Greater Kansas City. A goal is to develop sustainable water management practices.

Kansas is second in the nation for wind energy production so it’s natural to conduct wind energy research here. In fall 2012, the Kansas Statewide Wind Energy Forum was held in Manhattan, with support from Kansas State University and others, through participation in the Kansas Board of Regents Council of Chief Research Officers.

Wind research not only increases access to renewable energy resources, but trains students for clean energy jobs in the fast-growing wind industry.

The projects included in this issue provide a look at some of the impactful research being conducted at Kansas State University. These ongoing efforts help preserve America’s resources for future generations. We are confident that such excellent and vital work will help Kansas State achieve our goal of becoming a Top 50 public research university by 2025. We hope you will take a look.
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