




## Biological & Agricultural Engineering Extension Specialists

	<p><b><u>Joseph Harner</u></b> Dairy Systems Specialist Professor and Department Head 1016 Seaton Hall 785-532-5580 <a href="mailto:jharner@ksu.edu">jharner@ksu.edu</a></p> <p><b>Summary:</b> Dr. Joe Harner’s extension program focuses on bringing fundamental engineering principles into the design and evaluation of heat abatement systems for conventional dairy structures in the development of low-profile, cross-ventilated, free-stall building design. He has shared his expertise and latest technology with students, agricultural producers, industry representatives, and government agencies. In an effort to reduce the environmental impact of animal feeding operations, Dr. Harner explores alternative technologies like wetlands and vegetative filters and develops passive sand separation structures including sand lanes, sand traps, and sand beaches.</p>
	<p><b><u>Jonathan Aguilar</u></b> Irrigation Technology Specialist Associate Professor Southwest Area Extension Office 620-275-9164 <a href="mailto:jaguilar@ksu.edu">jaguilar@ksu.edu</a></p> <p><b>Summary:</b> Jonathan Aguilar’s extension program focuses on water resource issues, particularly as they pertain to the irrigated agriculture in western Kansas. The major emphasis of his activities is in technology development and management as it applies to irrigated agriculture. He provides leadership and support on irrigation water management for county extension agents and producers across the state. His current educational programs focus on irrigation efficiency improvement, crop water allocation, ET-based irrigation scheduling, soil moisture sensors, Mobile Drip Irrigation (MDI), groundwater quality and Subsurface Drip Irrigation (SDI). He is a licensed professional engineer.</p>
	<p><b><u>Edwin Brokesh</u></b> Machinery Systems Specialist Assistant Professor 1039 Seaton Hall 785-532-2907 <a href="mailto:ebrokesh@k-state.edu">ebrokesh@k-state.edu</a></p> <p><b>Summary:</b> Edwin Brokesh received a MBA and PhD from Kansas State University. He joined Kansas State University in 2008 as an Extension Specialist working in the area of energy, bioenergy, agricultural machinery systems, and agricultural machine safety. He is currently conducting research in areas of ag machine usage, forage harvesting, dry fertilizer application, and livestock transportation. His extension education work includes agricultural machine safety, lighting and marking of ag equipment, care and use of biofuel blended fuels, and bioenergy feedstock production. He is a licensed professional engineer.</p>



**[Ajay Sharda](#)**

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**Summary:** Ajay Sharda's extension program focuses on development, analysis and experimental validation of control systems for agricultural machinery systems with special emphasis on automation; sensor testing/development; mechatronic systems; developing automated test setups for hardware-in-the-loop simulations; high speed imaging; image analysis; unmanned vehicles, thermal infrared imaging.



**[Aleksey Sheshukov](#)**

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**Summary:** Aleksey Sheshukov, BAE State Extension Leader and Chair of Natural Resources Program Focus Team, joined Kansas State University in 2008 as a watershed modeling specialist and later BAE as a water-quality specialist where he leads research and extension program on various problems related to watershed hydrology and water quality. Dr. Sheshukov's extension work includes activities on reducing soil erosion with the emphasis on ephemeral gullies, evaluating water-quality benefits of management practices on agricultural fields, developing watershed management plans, educating agricultural professionals, and providing service and engaging citizens in conservation and protection of Kansas watersheds.