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U.S. Department of
Transportation



Project Title: *Expanding Production Area and Alternative Energy Crop Market of Proso Millet for Water Deficient Lands*

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Project Goal

Kevin Larson's team looked at the feasibility of using proso millet as a viable biofuels crop for the Southern High Plains. The team: a) evaluated four cultivars to see which cultivars are adapted to the drier region, b) tested multiple planting dates to determine the optimum planting window, and c) developed crop enterprise budgets as production decision tools for proso millet as a birdseed crop compared to proso millet as an ethanol crop.

Project Outcomes

- Larson's team identified Huntsman and Sunrise as well-adapted, high ethanol-producing proso millet cultivars for the Southern High Plains.
- The team found mid-May to late June as the proso millet optimum planting date window in our region for high ethanol production. However, this planting date window was extrapolated from the Walsh, CO site only, as the monthly planting dates in Goodwell, OK were lost to bird damage.
- The team developed crop enterprise budgets for proso millet as an ethanol feedstock and as a birdseed crop. These crop enterprise budgets allow economic comparisons and provide cropping decision tools for growers. Unless the demand and price of proso millet increases, due to its acceptance as an ethanol grain, growers will not change their crops and cropping systems and proso millet will not capture additional acreage.
- They also found that proso millet is the least costly fermentable grain, currently worth \$2.35/bu more than its current price. As such, they anticipate a change from the traditional corn and grain sorghum ethanol feedstocks to include proso millet.



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