

ATRAZINE MANAGEMENT

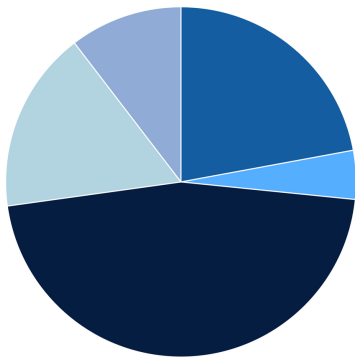
in the Little Ark Watershed

PROJECT BACKGROUND

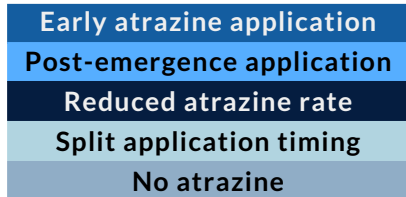
The Little Arkansas River flows into the main Arkansas River in Wichita. Up to 80% of the area is typically farmed, and producers apply atrazine on their fields. Atrazine is a common means for preventing broadleaf weeds in sorghum and corn fields, because it dissolves easily in water and enters the plants through the roots.

The problem is that atrazine can remain in the soil and it is considered "moderately to highly mobile," which means that runoff can transport the herbicide out of the fields where it belongs and into the area's drinking water. The City of Wichita employs an artificial recharge project, which captures water from high river flows and injects it back into the Equus beds for future use. Too much atrazine flowing into the river means the city must invest additional funds to remove the excess herbicide from the water before returning it to the aquifer.

BEST MANAGEMENT PRACTICES



Implementation in the watershed (2021)



The goal is to **reduce atrazine in targeted watershed areas to 3 µg/L**, with no seasonal spikes. To do this, the atrazine reduction program targets specific sub-watersheds and focuses on farmers changing their management practices, not just adding waterways or terraces to mitigate atrazine runoff. Priority watersheds selected for 2021 were **Turkey Creek, Emma Creek, and Sand Creek**. To support these changes, the program offers education and training on the benefits of crop rotation and the use of cover crops. All stakeholders, including farmers, pesticide dealers and crop consultants are invited to take part in educational and training activities.

Producers who opt into the program receive a small incentive payment, based on the the amount of atrazine reduction expected for farmer-implemented BMPs. In 2021, payments for fields within riparian zones were paid a double rate, while fields within the Turkey Creek watershed (but not within the riparian area) were paid a 1.5 rate.

More information about how atrazine affects water quality and Best Management Practices can be found in the K-State Research and Extension publication, "[Atrazine Herbicide Best Management Practices for the Little Arkansas River Watershed.](#)"

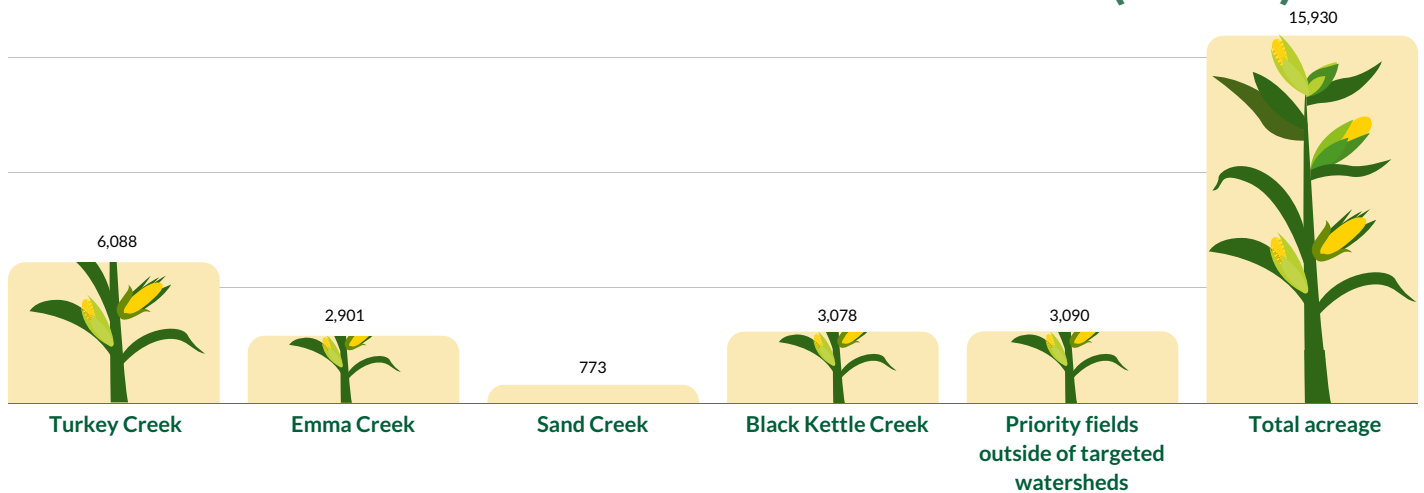




BY THE NUMBERS (2006-2021)



ACRES OF CORN AND GRAIN SORGHUM (2021)



LOOKING TO THE FUTURE

The atrazine management program seeks to be flexible, no matter what the future holds; as economics, growers and conditions change, atrazine management practices must also adapt. This program works to make conversations about atrazine BMPs part of the agricultural conversation, rather than an afterthought. With this in mind, the atrazine BMP program will continue educating growers, pesticide dealers, applicators and other stakeholders, and fostering awareness. Area partnerships, especially with the City of Wichita, are essential to reaching these goals. It is hoped that adoption of atrazine BMPs will continue to rise, which will lead to improved water quality within the watershed.

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Kansas State University Agricultural Experiment Station and Cooperative Extension Service
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