October 2018

Patent Focus: The trick to patent success

Pat Melgares
Kansas State University

Follow this and additional works at: https://newprairiepress.org/seek

Part of the Higher Education Commons

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License.

Recommended Citation

This Article is brought to you for free and open access by New Prairie Press. It has been accepted for inclusion in Seek by an authorized administrator of New Prairie Press. For more information, please contact cads@k-state.edu.
The trick to patent success

Plaint pathologist's patent portfolio benefits farmers, researchers

By Pat Melgares

A Kansas State University researcher has received two big thumbs up from the U.S. Patent and Trademark Office for his collaborative wheat work.

Under the leadership of Harold Trick, professor of plant pathology, the university is involved with two wheat-related patents: an approved patent to stop wheat viruses from reproducing and a pending patent to improve the crop's resistance to heat.

"Both of these projects do have a valid product in the end," Trick said. "That's a positive thing.

"That's exciting," Trick said. "And it has tremendous potential in the field. It's not a cure-all for entire heat stress, but it's one component.

"We can use biotechnology to validate other avenues of research," Trick said. "For example, if K-State collaborators find a gene that is potentially valuable, we can use biotechnology to confirm its function by either turning off its expression or over-expressing the gene."

Trick said this validation could be done in a matter of months, rather than a decade or more through traditional breeding techniques.

"Both of these projects do have a valid product in the end," Trick said. "Unfortunately, this wheat gene doesn't like the heat.

"We've also noticed that there's no penalty in other agronomic traits when we use these genes, whether we are using the rice gene for heat tolerance or for shutting off the endogenous wheat gene for the virus."

Trick's pending patent is for work that improves wheat's resistance or tolerance to heat.

"That's a potential for loss of yield," Trick said. "It can be extremely hot during those times.

"Studying the weather records really gave me a feeling for the reality of the outcome of the cattle trade. One example he describes is how rainfall influenced the agricultural values of the land, which then affected cattle's condition of markets. Another example he explains is the winters of 1871 and 1872, which were especially rough on the trail.

"For me, being a historian gives insights on what it means to be human and tells us other paths."

Sherow's accomplished career in history also has led him down several other paths.

A fourth-generation Kansan, he is passionate about public history and historic preservation in the state and in Manhattan. He was selected for the governor-appointed Kansas Heritage, Iowa Board of Review and served on the Manhattan City Commission for six years. He served as mayor from 2011-2012. Sherow also is the author of five other books, several book chapters and scholarly articles, and he is managing editor of Kansas History: A Journal of the Central Plains.

"For me, being a historian gives insights on what it means to be human and tells us how we've gotten to this point in time," Sherow said. "History is ecological and ecology is biological."